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ABSTRACT

This report describes the strategies, accomplishments, and outcomes of a project designed to identify economically disadvantaged rural gifted children (grades 3-8) from African American, Hispanic, Native American, and Appalachian descended, rural Caucasian populations. Project objectives are outlined, along with evidence of their accomplishment. The project developed instruments and procedures for identifying ethnically diverse gifted students and developed science curriculum procedures and teaching strategies appropriate for nurturing the talents of these children. Findings of the project are discussed. These include: (1) the identification procedures developed for the project significantly increased the number of disadvantaged rural gifted children from diverse populations being served; (2) the elementary school science curriculum interventions improved the scientific problem-solving skills of identified students; (3) a follow-up study of students in junior high school showed a maintenance of creative writing skills and self-concept scores, while science attitude and achievement, as well as other creativity measures, dropped; (4) participating teachers became sensitized to the greater abilities of previously underserved children; (5) identification improved student self-confidence and aspirations to graduate from high school and attend college; and (6) effective implementation of these changes required considerable support from project staff, principals, gifted coordinators, and teachers. Appendices contain an Internet workshop evaluation and case studies of students benefiting most and least from the project. (CR)

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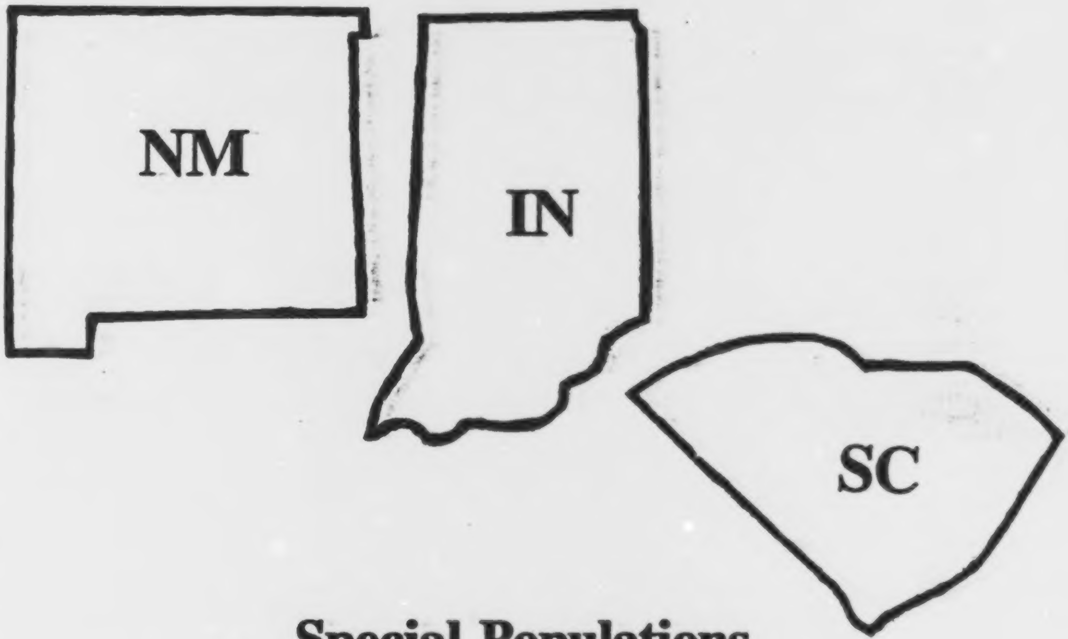
PROJECT SPRING II

FINAL REPORT



Special Populations
Rural Information Network
for the Gifted

Howard H. Spicker, Project Director
Nancy S. Breard, South Carolina Site Coordinator
Elba I. Reyes, New Mexico Site Coordinator

Project SPRING II was funded by a grant from the Jacob K. Javits Gifted and Talented Students Education Act, U.S. Department of Education (Grant No.R206A20011)

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1996

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PREFACE

This report is one of several products developed under the auspices of **Project SPRING II** (Special Populations Rural Information Network for the Gifted).

Project SPRING operated within a three-state consortium which comprised Indiana, South Carolina, and New Mexico. **Project SPRING** received funding through The Jacob Javits Gifted and Talented Students Education Act, United States Department of Education.

Developed for the express purposes of identifying and serving the needs of rural gifted and talented special populations, **Project SPRING** worked with rural gifted students from economically disadvantaged backgrounds in grades 6 through 8 in southern Indiana, rural African American gifted and talented 3rd through 5th-grade students in South Carolina, and Mexican American and Mescalero Apache 4th through 5th-grade students in New Mexico.

The project accomplished the following goals:

1. Demonstrated instruments and procedures for identifying ethnically diverse (African American, Mexican American, and Native American - Mescalero Apache) gifted students.

2. Demonstrated promising science curriculum procedures and practices for use with the rural populations of gifted students identified above.

3. Developed preservice and inservice training procedures for use by educational personnel to properly identify rural special populations of gifted students.

4. Developed preservice and inservice training materials and procedures to allow more effective science teaching to rural gifted students from special populations.

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ACKNOWLEDGEMENTS

Project SPRING II is the result of the cooperative efforts of numerous persons who devoted their time and expertise to the project during its three-year funding cycle.

Heartfelt appreciation goes to Shirley Aamidor, the project's highly skilled and dedicated overall project coordinator, who efficiently organized and monitored day-to-day operations across the three sites. Shirley was also instrumental in the development of the identification and curriculum manuals. Appreciation is expressed to SPRING's talented consultants: Sam Guskin, external evaluation; Linda Shepard, statistical analysis; Duane Busick, video technology; and Lisa Blank, science curriculum. Special thanks to Lisa Killion for her enthusiasm and skill as SPRING's administrative assistant, and to Valerie Savage for her capable editing and typing of our manuscripts.

At the Indiana site, a special acknowledgement goes to the demonstration-school site leaders: Martha Nice and Walda Tower (Paoli), and Diane Wilson (Crawford County). They were instrumental in developing innovative curriculum materials and practices, and directing the implementation of those innovations.

In South Carolina, under the capable leadership of Nancy Breard, we owe a debt of gratitude to our on-site demonstration-school support teachers and administrators: June Moorehead (Daisy), Judy Lambert (Elloree), and Melba McKenzie and Myra Rivers (Estill); to our highly skilled staff development consultants, Judy Beard, Carolyn Powell, Runnelle Gainey, and Judy Gosser; and to Nancy's loyal administrative assistants, Shawn Rudd and Natalie Dean.

In New Mexico, under the direction of Elba Reyes, special thanks are extended to Bruce Carter, whose computer skills managed the New Mexico data, and to Mary Saxton, whose curriculum knowledge and enthusiastic teaching styles provided demonstration-school teachers with the support they needed to make necessary curriculum modifications for SPRING II students.

Finally, Project SPRING II could not have been conducted without the generous assistance of demonstration site teachers, administrators, and students. Our heartfelt thanks to all of you.

Howard H. Spicker
Project Director

SUMMARY OF MAJOR OUTCOMES

Purpose

The major charges of **Project SPRING II** were to develop identification methods and procedures appropriate for identifying underserved rural gifted children from African American, Hispanic (Mexican American), and Native American (Mescalero Apache) populations, and to identify and demonstrate science curriculum procedures and teaching strategies appropriate for developing the talents of those children. In addition, science educational interventions were to be provided for the Appalachian descended rural disadvantaged gifted children identified in **SPRING I**, and the progress of these children was to be monitored throughout their junior high school years.

Accomplishments

1. The Characteristics that tend to describe the strengths and weaknesses of potentially gifted disadvantaged African American and Mexican American children from rural backgrounds were identified.

2. Procedures for identifying rural disadvantaged gifted children from diverse populations were developed, and a manual with accompanying video tapes to train educators in the use of these procedures were prepared.

3. Science curriculum procedures and teaching strategies appropriate to rural disadvantaged elementary and middle school gifted students were developed, and a manual and accompanying video tapes describing those curriculum modifications were prepared.

Findings

The overall findings of the project based on quantitative measures were as follows:

1. The identification procedures developed for the project significantly increased the number of disadvantaged rural African American, Mexican American, and Mescalero Apache gifted children being served in the participating schools.

2. The elementary school **SPRING** science curriculum interventions significantly improved the scientific problem-solving skills of **SPRING** identified students.

3. The follow-up study of Indiana **SPRING I** students in junior high school showed a maintenance of their creative writing skills and self-concept scores at the level attained at the end of **SPRING I**, while science attitude and achievement, as well as other creativity measures, dropped.

Among the many findings based on interviews and other qualitative measures, the following appear to be the most salient:

1. Participating in or observing special identification tasks and outcomes sensitized teachers to the greater abilities of previously underserved rural disadvantaged and/or ethnically diverse gifted children.

2. Identification as a **SPRING** student improved student self-confidence in their special talents and increased their inspriations to graduate from high school and attend college.

3. Acceptance by teachers of the proposed changes in how science and other subjects were taught

seemed to depend on the extent to which these fit into either the existing orientation of the teachers or into changes they were otherwise being asked to make, e.g., whole language, integrated curriculum.

4. The effectiveness of implementation of these changes with their own students required considerable support from project staff, administration (principal), GT coordinators, and/or fellow teachers.

5. Teachers and students reported high levels of involvement in hands-on learning activities, including individual classroom learning centers, science labs, science projects, and field trips.

6. Long term effects of these interventions were hard to establish, because students are eventually faced with discontinuous learning experiences in secondary schools, which are less motivating relative to other interests of students. They were particularly turned off by direct instruction, testing, and homework, which they found boring.

Conclusions

1. When the **SPRING** identification strategy is effectively implemented in a supportive school environment, teachers become alert to the diversity of talents held by a number of students whom they had previously seen to be inadequate, uninspired, or untalented.

2. Most schools and teachers are more interested in the interventions and resources which can be given to all students, rather than a select few.

3. To have a long term impact on individual children, continuity of learning experiences are required.

PROJECT ACCOMPLISHMENTS

Demographic Data of Participating School Districts

Two rural middle schools serving primarily Caucasian Appalachian descended children in Southern Indiana, three rural elementary schools serving predominantly African American children in South Carolina, and three elementary schools serving significant numbers of Mexican American and/or Mescalero Apache children constituted the demonstration sites for the project.

Indiana Site Descriptions
Ethnic Focus: Caucasian Appalachian Descended

Crawford County Public School Corporation

Founded in 1816, Crawford County is located 130 miles south of Indianapolis. Its population is 99.4% white, with the largest ancestry groups coming from English (14%), German (32%), and Irish descent (20%). Over half of its total land area is in timber, with almost 30,000 acres within state and national forests. In fact, 94% of Crawford County's manufacturing comes from lumber.

Of the ninety-two counties in Indiana, Crawford County is identified as the poorest county. In 1993, Crawford County experienced a 10.4% unemployment rate, while the state average was 5.3%. This lack of employment opportunities is reflected in the poverty rate of the county; almost 20% of residents are below the poverty level, and two of every ten children live in poverty. In 1990, four of every ten residents had not completed high school.

The Crawford County Junior-Senior High School reported an enrollment of 883 students in 1994-95 for students in 7th through 12th grade. Twenty-six percent of these students applied, and qualified for free or reduced lunch. Students had an attendance rate of 95.5%, and a graduation rate of 73.8%. One advanced placement class is offered in math, allowing a student to receive college credit. Of those seniors graduating, more than half planned to attend college, nursing school, or a technical program. Average SAT composite scores were 848 (Verbal 414, Math 434).

Paoli Public School Corporation (Orange County)

Founded and settled by Quakers in 1816, Paoli is situated approximately 100 miles south of Indianapolis, and is the county seat for Orange County. In 1990, Paoli's population was 99.6% white, with the largest ancestry groups composed of persons of English (18%), German (26%), and Irish descent (18%).

The county's topography varies from a classic karst region in the northeast to rugged hill land in the southwest. These features have limited agricultural development, and today, the local economy depends chiefly on tourism and light industry; half of all workers are employed in lumber/wood and furniture related industries.

In 1992, Orange County had an unemployment rate of 12%, when the state average for this period was 6.5%. Almost one in five families with children were below the poverty level in 1990. During this same period, slightly more than one in three residents of Paoli did not have a high school diploma.

Paoli Junior-Senior High School reported an enrollment of 799 for 7th through 12th grade in 1994-95. Twenty-four percent of these students applied, and qualified for free or reduced lunch. The average attendance rate for this period was 96.0%, and the graduation rate was reported to be 74%. No advanced classes were offered during 1994-95. Average composite SAT scores were 940 (Verbal 441, Math 499). Of the graduating senior class, 40% planned to attend college.

South Carolina Site Descriptions
Ethnic Focus: African American

Elloree Elementary School, Orangeburg County

The Elloree Elementary School region encompasses a large rural area, with two small towns (Elloree and Santee) located seven miles apart. The lake regions and Santee are expanding tourism and retirement development areas. School facilities are used by the community for a variety of activities ranging from adult education to wedding receptions.

Elloree Elementary School serves students from child development programs through sixth grade. The school's ethnic composition is 85% black, 14% white, and 1% Asian with 93% of the school's population qualifying for free or reduced lunch.

During the three-year term of the grant. Elloree Elementary has had three different principals and two superintendents. In addition, there has been a 50% turnover in the teaching staff. The coordinator for the gifted program has been the contact person for the South Carolina site director. She provides stability for the school as well as the Javits grant. She coordinates all of the teacher meetings, staff development programs, and parent meetings by sending out communications, arranging meeting places, etc.

Daisy Elementary School, Horry County

Horry County is geographically the largest county in South Carolina and the largest school district by area. Per capita income is $15,127 with 8.7% of the population employed in manufacturing, 5.0% of the population employed in construction/mining, 64.2% in wholesale/retail trade or services and 12.2% employed by the government. Approximately 15.2% of the total population and 22.6% of school age children live below the poverty level.

Daisy Elementary is in the Loris attendance area, which is rural and agricultural. The school itself is isolated by six miles from any population center. It is a new school (the physical plant is six years old), nestled in a wooded area. With an enrollment of approximately 553 students, the school has 54% African American students with 76% of the total population qualifying for free or reduced lunch.

During the three-year grant period, Daisy elected to become a year-round school. This meant that during the last two years of the grant, Daisy had a different schedule from the other two school sites. In addition, teachers changed grade levels and the elementary school became somewhat departmentalized with teachers responsible for math/science or language arts/social studies. These changes produced a great deal of teacher stress.

Estill Elementary School, Hampton County

This county's birth occurred in the post-Civil War Reconstruction Period as South Carolinians were struggling to regain their government after radical rule by Federal forces. "Carpetbaggers" and others had been in control some fifteen years when a great and respected general of the Confederacy, Wade Hampton, a member of a pioneering Southern family of planters, who was elected governor in 1876, was memorialized in the county name. It was Governor Hampton, a hero of regional standing, who signed the act creating Hampton County into law on February 18, 1878.

Hampton County's economy is rooted deeply in the soil with agricultural crops and forest related products being economic mainstays. One of the county's major employers is International Paper. There is diversity of small industry complementing the agri-economy, ranging from fiber glass production and shoe manufacturing to steel fabrication and a custom door industry. Logging operations are everywhere in these heavily timbered lands, and there is some tree farming for reforestation. A multi-million dollar high-tech incinerator, which furnishes steam to industries by burning solid waste, became operational in 1985.

Hampton County is best known to many sportsmen and hunters and fishermen for great hunting grounds and good river and creek fishing within its borders. A state wildlife refuge and experimental station are operated by South Carolina Wildlife and Marine Resources at the former plantation of August Belmont, and a winter horse training ground is located near Garnett. There are numerous private hunt clubs and fishing ponds in the county.

The growth of Hampton County in the twentieth century is represented by the formation of several communities into incorporated towns, one of which is Estill. Estill Elementary, pre-K through fifth, has an enrollment of approximately 750 students, with 95% being African American and 93% qualifying for free or reduced lunch. There has been "white flight" to the private school, Hampton Academy, for those who could afford to go. Because Estill Elementary has such a high percentage of disadvantaged children, it receives extra federal and state dollars. The administration has used the money to decrease the pupil/teacher ratio. No classroom at the elementary school exceeds 20 students. Teacher moral is high as a result.

Since the pupil/teacher ratio was so low, thirteen teachers were involved with SPRING at the third and fourth-grade levels. They were at varying levels of professional development, but were cooperative and willing to learn if it meant helping their students. This site, above the other two, had a sense of teamwork. The administration and faculty perceive themselves as a team, working to improve the education of their students. There was genuine interest in and concern for the students.

New Mexico Site Descriptions
Ethnic Focus: Mexican American

The Gadsden School District's Anthony and Berino Elementary Schools were the sites for the project. The project sites are two rural elementary schools located on the New Mexican-Texas-Mexico border in the towns of Anthony, New Mexico and Berino, New Mexico. Combined population of both communities is 5,000. The majority of the families in these towns are of families who have migrated north to the United States primarily from rural towns in Mexico's state of Chihuahua that still experience dire conditions of poverty. For example, most dwellings in Chihuahua are still without water and families still collect their daily water supply from communal wells. Educational opportunities are extremely limited even for elementary school aged children and there are no programs for children with special needs. The cultural roots of these families are originally Aztec Indian and later Lipan Indians. These populations were subsequently ruled by the Spaniards during the conquest periods of the sixteenth to the nineteenth centuries. Spanish influence is evident primarily in the families' religion, language, and in the loss of their indigenous traditions.

Berino Elementary School

Berino still reflects much of the rural Mexico culture. The site has no governmental structure and growth is not regulated by government guidelines. As a result, there is no tax base, no government office or facilities other than the public school, most roads are not paved, and many of the dwellings are mobile homes or trailers without water source. The road in front of the public school and the road to the school were paved during the school's construction and water is piped into the school from the nearby town. The school follows a year-round schedule and has a total student enrollment of 650 students in grades K through six. The ethnic composition of students in that school is 94% Mexican American with 6% white, non-Hispanic. Ninety percent of the students at this school are classified as being at or below the poverty level. Faculty compositions is 71% Mexican American and 28% white, non-Hispanic. The majority of the teachers at both sites live outside the schools' attendance areas.

Anthony Elementary School

In contrast, Anthony, New Mexico, the adjacent town, is more developed and enjoys a municipality status. As such, it has a small tax base as well as several federal, state, and local government facilities such as the Social Security Administration, Department of Economic Security, Motor Vehicle offices, and a local post office. The postmaster is also the local real estate agent, and her postal/real estate offices are housed in an old adobe structure. Within the community there are five formal religious structures (churches or temples) and several other less formalized religious groups. Similar to the churches in rural Mexico, these religious groups have provided opportunities for social interaction for the adults and children of the community. More recently, however, groups not associated with any religious affiliations have started to form sports activities for children such as little leagues in softball and soccer. At the time of this project, the local public elementary school was a consolidated school with 1,300 students in grades K through six. Ethnic composition of this school is 97% Mexican American; 2% white, non-Hispanic, and less than .5% African American and/or Native American. Ninety-one percent of the student body is at or below the poverty level. The faculty ethnic composition is 48% Mexican American and 52% white, non-Hispanic.

Ethnic Focus: Native American - Mescalero Apache

White Mountain Elementary and Intermediate Schools

The Mescaleros have one of the best reservations in the United States. The land covers approximately half a million acres of breathtaking beauty, abundant in wild life and timbers, fulfilling the prophesies of one of their chiefs, "We will have our reservation in the mountains, and that will be good." Today, the Mescalero Apaches are one of the richest Indian nations in the southwest.

School sites were the White Mountain Elementary and Intermediate schools in the Ruidoso School District. The schools have approximately 340 students with an ethnic composition of 42% White, 33% Hispanic, and 25% Native American. Although the schools report a 42% overall poverty level among students, 70% of the students were on a free lunch program. These schools were not on the Mescalero Apache reservation but in the resort town of Ruidoso, New Mexico.

At the time of the project the Native American community was in a political conflict with the Ruidoso community regarding several issues including the proposed nuclear dump site on the reservation.

During the project, when the Mescalero Apache community voted to house the nuclear dump site, the Ruidoso School District opted to withdraw from the project. As a result, identification and results reported are for the first year of the project. However, the tribe has permitted us to evaluate several of the students in the gifted program at the tribal school on the reservation and to observe the curriculum offered to the students in their gifted program. This information is included in this report.

Project Objectives: Activities

Objectives Related to Identification

Objective 1. To modify and demonstrate instruments and procedures appropriate for identifying rural gifted and talented students from economically disadvantaged Hispanic, Native American, and African American populations.

Objective 3. To develop preservice and inservice training procedures to allow more efficient identification of rural gifted and talented students from ethnically diverse populations.

Strategies for Accomplishing Objectives Related to Identification

Indiana
Ethnic focus: Caucasian Appalachian

In **SPRING I** it was discovered that disadvantaged rural Caucasian children were significantly under served in the gifted programs that were offered in the two participating school districts of southern Indiana (See Table 1).

Table 1

Fourth-Grade Baseline Data of Disadvantaged Children in Participating Indiana School Districts

	Paoli	**Crawford County**
% of Disadvantaged Students in 4th Grades	41%	36%
% of Disadvantaged Students in Regular Gifted Programs	7%	5%
	N = 1 of 15	N = 1 of 19

To improve the ratio of disadvantaged to nondisadvantaged gifted children in those school districts, several steps were taken.

1. Numerous nontraditional instruments and procedures for locating rural disadvantaged gifted students who might benefit from gifted programming were piloted. These included:

   a. Writing samples from all fourth-grade students generated in response to a single prompt and evaluated for creativity.

b. Peer nominations across grade level using a thematic approach for selection of creative peers.

c. Parent nominations through collection of information on the child in the home environment with examples and products included.

d. Sources outside the regular school setting:

1) Latch-key program supervisors to recall preferences for free-time activities that indicate an area of multiple intelligences.

2) Odyssey of the Mind coaches for creativity nominations.

3) Administrators, coaches, student teachers, bus drivers, scout masters, swimming pool supervisors.

e. Within school contests based on Howard Gardner's Seven Intelligences.

f. Torrance Streamlined Tests of Creative Thinking.

Of these procedures, the within school contests, parent information survey, the nonverbal section of the Torrance, and writing samples scored for creativity without regard to grammatical form, spelling, or handwriting, produced the most children that had not previously appeared in the GT screening pool. These procedures are fully described in the **SPRING II** Identification Training Manual.

2. A list of characteristics that distinguished traditionally identified gifted children from those of **SPRING** identified children were developed (See Table 2).

Table 2

Characteristics of Rural Advantaged and Disadvantaged Caucasian Appalachian Gifted Students

Advantaged Rural Gifted Students Middle-class children whose behaviors reflect the traditional values of the dominant culture.	**Disadvantaged Rural Caucasian Appalachian Gifted Students** Economically disadvantaged and/or geographically isolated children whose behaviors reflect traditional Caucasian Appalachian cultural values.
1. Speak standard English	1. Speak a nonstandard regional dialect
2. Are verbal and have good communication skills	2. Are less verbal in oral communication skills
3. Are active participants in classroom activities	3. Tend to be passive participants in classroom activities
4. Perform tasks within time limitations	4. Are relatively unaffected by time pressures; work slowly but meticulously
5. Complete classroom assignments and homework	5. Are likely to be lax in completing assignments and homework
6. Perform well on standardized tests	6. Are not likely to perform well on standardized tests
7. Perform well in all subjects	7. May show exceptional ability in one subject and average to below average in others
8. Produce written work in proper grammatical form with good spelling and legible handwriting	8. Produce written work that may be of high quality in content but of poor quality in grammatical form, spelling and handwriting
9. Demonstrates their strengths within the academic classroom	9. More likely to demonstrate their strengths outside the classroom, e.g. auto and tractor repair, knowledge specific to their rural environment, creativity related to 4-H projects, talent in music and the performing arts
10. Usually perform equally well on verbal and nonverbal tests	10. Are likely to perform better on nonverbal than verbal tests

3. Inservice training workshops to familiarize teachers with the characteristics that distinguish rural disadvantaged gifted children from advantaged gifted children were developed and held. The sessions are fully described in the SPRING II Identification Training Manual.

The results of these nontraditional identification procedures and awareness workshops dramatically expanded both the talent pools and selection of disadvantaged rural gifted students in GT program options. The relationship of economically disadvantaged school populations and their placement in gifted programs equaled, and in some cases, surpassed those that were in the school population (See Table 3).

Table 3

Number of SPRING and Traditional Identified Gifted Students Served in Gifted Programs in the Two Project SPRING Indiana Sites

School District	**Traditionally Identified Gifted**		**SPRING Rural Disadvantaged Gifted**	
	1990-91	1991-92	1990-91	1991-92
Crawford County	19	19	12	13
Paoli	15	12	26	16
TOTALS	34	31	38	29

A major purpose of **SPRING II** was to determine the extent to which the identification instruments and procedures used in **SPRING I** to find rural disadvantaged Caucasian gifted children needed to be modified to find under served rural gifted students from disadvantaged African American, Hispanic, and Native American populations. A description of the strategies used and the results obtained in achieving this purpose follows.

South Carolina
Ethnic Focus: African American

Each of the three project schools had a pull-out program for gifted students that began at the third-grade level. The students were identified using the South Carolina Weighted Profile. This system is based on 100 points with the points apportioned as follows: 1) Aptitude - maximum is 45 points for an aptitude score in the 99th% with the points decreasing as the score does, 2) Achievement - maximum is 45 points or 22.5 for each of the two highest of the three scores, reading comprehension, math total and total battery. To get 22.5 points for a subtest, the student must have scored at 99th%. As percentile decreases, so do the points earned. 3) Performance Data - up to 10 points can be earned in this category using at least two items such as grades, teacher checklist, evaluation of products, etc. To be identified as gifted, the student's total points on the SC Weighted Profile must be 89.5 or higher. The aptitude and achievement scores are most often from group administered measures. Table 4 clearly illustrates that African American students were significantly underrepresented in the gifted programs of the three project schools when the South Carolina weighted profile was used as the sole means of identifying gifted children.

Table 4

Gifted Students Served Grades 3 - 5 in 1993

Schools	Percentage of African American Students in Each School	Number of Gifted and Talented Students	Black/White
Daisy	54%	14	0/14
Elloree	85%	9	3/6
Estill	95%	3	3/0

To increase the number of disadvantaged African American children in project schools, the following steps were taken.

A. Numerous Instruments and Activities were used to Identify Bright African American Children for Project SPRING II. These included:

1. Information forms. The parent information form is a modified version of the one developed for **SPRING I**. The format of the questions used in **SPRING I** was retained. For each question, elaboration was asked for, i.e., "How long has he/she done this?, Can you tell us any stories about this?, or send a sample to school?" The seven questions incorporated the characteristics provided by African American parents. Examples are: "Is talented in music/dancing/singing/storytelling/etc." "Has a good memory." "Is a leader of other children in games or activities." "Is really interested in _______." To ensure good return rate from parents, inexpensive prizes were given to students who return the form. The return rate varied from 60 - 70%.

2. Creative writing samples. Students were asked to write a story entitled, "The Flying Monkey." The sample was scored for creativity without regard to spelling, grammar, etc.

3. Torrance Tests of Creative Thinking (modified form). Although both the verbal and figural sections were given to the student, only the figural part identified a significant number of SPRING II students.

4. Raven's Progressive Matrices. This test was given because it is nonverbal, approved as a valid measure of aptitude for state funding, and there was no cost involved. This untimed test consists of a series of designs. Each design is missing a piece. The student selects from a number of possible pieces, the one that will accurately complete the design.

5. Storytelling festival. This activity was included in the identification process because African Americans as a group have an oral tradition with language rich in metaphors (Baldwin, 1989). Participation rather than competition was emphasized with each participant receiving a paperback book. An evaluation form was developed for teacher use. The form included criteria such as clear storyline, characterization and kinesthetics. The criterion that seemed to distinguish the best storytellers was kinesthetics. These students used facial expressions, gestures, voice inflections, and movement to tell their stories. The stories included well-known fairy tales (sometimes with a new twist) parts of several stories combined, and lots of superheroes, such as Spiderman. This ability frequently goes unrecognized because it is demonstrated in nonstandard English.

6. Pioneer day. This activity was adopted from **SPRING I** with little modification. Students were permitted to select a task from a variety based on Howard Gardner's Multiple Intelligences. The prompt for the activity is, "You and your buddy are walking in the woods. Suddenly you realize you are lost and it is getting late in the day..." The tasks students could choose from are as follows with Gardner's intelligence(s) in parentheses:

1. Draw a map of the area. Include all important information such as measurement in feet, miles or direction, and natural landmarks. Explain where you might want to stop and why. (SPATIAL/MATHEMATICAL)

2. Build something to protect or shelter you or help you survive. (KINESTHETIC)

3. Tell a story into the tape recorder or write a letter in your diary about your encounters in the woods. Tell how you might try to get out of the woods or survive in it. You can make it a "Tall Tale." (LINGUISTIC AND INTRAPERSONAL: Diary, Audio Tape)

4. Draw a picture of or make a new plant or animal you have seen in the woods. Tell everything you know about it. (VISUAL LINGUISTIC)

5. Create a song about you experiences in the woods or make an instrument from natural materials. (MUSICAL)

6. Create a system to communicate with people who may be looking for you. (INTERPERSONAL)

The measurement task used in **SPRING I** was dropped as too sophisticated for our age group, and the "Build a shelter" was modified to a more open-ended "Build something to protect or shelter you or help you survive." The score sheet, developed in Indiana, was changed to give more weight to the product than the interview because African American students do not tend to excel verbally in a structured situation such as an interview or test. As the students completed their selected tasks they were interviewed about their product on video tape.

Potentially gifted students were those who scored above the norm on two or more of the above measures or activities. Those measures that identified the most students across the three school sites were, in descending order: Pioneer Day, Ravens, Writing Sample, Torrance Test of Creative Thinking (figure sections only), and Storytelling Festival. Among the five, there was little variation in the number of students identified. Students had different combinations of two or more of the measures/activities that identified them.

B. A List of Characteristics that Distinguish Rural Disadvantaged African American Gifted Children was Developed (See Table 5). Inservice training workshops to familiarize teachers with those characteristics were held (See SPRING II Identification Training Manual). The number of **SPRING** identified African American and disadvantaged Caucasian gifted children is shown in Table 6.

Table 5

Characteristics of
Rural Disadvantaged African American
Gifted Children

Detractors

Speak a nonstandard English
Tend to be passive participants in school settings
Tend to be unmotivated toward school tasks
Tend not to perform well on timed tests and activities
Have difficulty with tasks that restrict movement

Strengths

Display rich oral language skills spiced with imagery and humor
Good eye-hand coordination, skilled body movements and physical stamina
Tend to perform better on nonverbal than verbal measures
Respond well to concrete experiences; are able to solve real life problems, and can improvise with materials
Are bicultural; equally adept at navigating between African American and mainstream cultures

Table 6

Number of African American and Disadvantaged White Gifted Students, Grade 3-5, Now Served in the Three Project SPRING, South Carolina Sites

School	**Traditionally Identified Gifted 1993**	**SPRING IDENTIFIED**	
		African American 1994	**Disadvantaged White 1994**
Daisy Elementary	14	5	14
Elloree Elementary	9	21	9
Estill Elementary	3	21	3

New Mexico
Ethnic Focus: Mexican American

Prior to Project **SPRING II**, as shown in Table 7, Mexican American children were substantially under represented in the gifted programs of the two participating schools.

Table 7

Number of Mexican American Students in Gifted Programs at Project Schools

Schools	% of Disadvantaged 4th Graders	Number of Disadvantaged Mexican American Students in Regular Gifted Programs
Anthony	91%	2
Berino	92%	0

To improve the ratio of gifted Mexican American children in the participating project schools, numerous quantitative and qualitative identification instruments and procedures were examined.

Quantitative Measures

1. The Matrix Analogies Test-Short Form (MAT-SF). Recent literature suggests that the **MAT-SF** is a viable alternative for use as a measurement instrument for identifying students' problem-solving skills. It measures nonverbal ability of students with and without disabilities, ages 5-17. The **MAT** assess pattern completion, reasoning by analogy, serial reasoning, and spatial visualization in a culture-free fashion. Furthermore, the **MAT** has been compared with the Weschsler Intelligence Scale for Children-III (**WISC-III**), the Kaufman Test of Educational Achievement-Brief Form (**KTEA-BF**), and the Stanford-Binet Intelligence Test, Fourth Edition. Results indicate that the **MAT** correlated significantly with these instruments and appeared equally useful as a screening test (Prewet, 1995; Prewett & Farhney, 1994).

At the request of the school, the majority of the fourth-grade students (118 out of 178 disadvantages students in Berino and 235 of 393 students in Anthony) took the **MAT**. Using a within group analysis of percentile rankings, students who scored in the top 25% were added to the identification pool.

2. Torrance Streamlined Tests of Creative Thinking. The Torrance tests were used because of the success **SPRING I** had experienced with the instrument in measuring creativity. They were administered in English and in Spanish by a native speaker at both sites. Students who took the Torrance were those students who scored 55% or higher (proportional scores on Q-Sorts) on the inventories or who were teacher recommended although they scored below the 55% cut-off score. (For more information on Q-sort and inventories, see item "a" under Qualitative Measures below.) For this project, the tests were evaluated using a within group analysis of percentile ranking. Students who scored in the top 25% were added to the identification pool.

Although the Torrance did not appear to yield significant evidences of creativity from the Mexican American population in either the verbal or nonverbal measures, consistent with previous findings (Bernal & Reyna, 1974), the Mexican American students performed better on the nonverbal activities than they did in the verbal activities, even though they responded in their native and dominant language. Although it is not clear why there appeared to be such overall low performance, part of the difference is due to New Mexico's use of a somewhat different scoring procedure for nonverbal elaboration (See comments in External Evaluation Report).

A within group comparison of students' results was made and the top 25% were included in the identification pool.

3. Creative writing samples. Writing samples were generated in response to a single prompt and scored for creativity. Students who generated the Creative Writing Samples were those students who scored 55% or higher (proportional scores on Q-Sorts) on the inventories or who were teacher recommended although they scored below the 55% cut-off score. Student names were removed from copies of student writings and samples were coded before the samples were further copied for scoring. The objectives of collecting writing samples were:

1. To identify students who demonstrate unusual writing talents.

2. To identify creative and critical thinking and imagination.

Writing samples were scored holistically as follows:

1. Two raters read the compositions for an initial "impression." The raters were graduate students not familiar with the students' handwritings.

2. Incorrect syntax, grammar, spelling, or other writing mistakes that could confound the scoring of creativity were not considered.

3. Next, each rater read each writing sample a second time and scored the piece for level of creativity using a Likert 1-5 scale. Each piece scoring a 4 or 5 was evaluated for evidences of creativity in fluency, flexibility, originality, and elaboration (see **SPRING I** Identification Procedures). In the case of a wide discrepancy in scores, a third party read the writing sample.

The top 25% were included in the identification pool.

Qualitative Measures

1. Parent, community, teacher, and students' self-inventories. Parent, community, teacher, and self-inventories were initially developed following recommended inventories from other communities. Parent and community response was low for the Mexican American group since many of the individuals could not read or did not understand the questions. Furthermore, parents and community persons commented that the questions were not based on what they considered to be important characteristics of giftedness. In addition, school personnel reported having to spend an inordinate amount of time following up on the questionnaires and making home visits and felt that parents did not understand the nature of the questionnaires. These initial questionnaires were subsequently modified.

Parents and community leaders participated in workshops for the purpose of developing a notion of giftedness more aligned and relevant to their cultural perspectives. Utilizing the characteristics established at their respective sites, each site developed new inventories to be completed by teachers, parents, and community contacts. In an effort to include students in the identification process, student self-identification forms were used. Forms were developed in both English and Spanish and student forms were completed in class and read to the class by the teacher to minimize reading level and language proficiency issues. These forms are included in the **SPRING II** Identification Manual.

Scoring inventories. The identification (ID) committee, composed of parents, community leaders, and school personnel, identified students for screening based on the parent, community, student, and teacher(s) inventory results. In order to generate the holistic scoring system for the information obtained via the inventories, a modification of Stephenson's Q-Sort methodology (cited in Aitken, 1987) was undertaken by project staff. This methodology was chosen because it is a scientific approach to the analysis of subjective information (i.e., ratings of student behaviors) which facilitates theory-building and sets up a framework for further study. Three university project members independently sorted all the items on the inventories into groups categories (i.e., linguistic, logical/mathematical, visual/spatial, kinesthetic, musical, interpersonal, and intrapersonal).

An Inventory Analysis form developed from these categories was used as the mechanism for the holistic scoring of the rated inventories. The ID committees were trained on the use of the Inventory Analysis form nd the concepts of holistic and proportional scoring.

Scoring procedure. Ten percent of the inventories were randomly selected to develop the screening and selection criteria. First, ID committee members examined the inventories for a global impression of the students' inventories. Each inventory was identified as having a high rating, medium rating, or low rating. Next, members discussed their criteria for identifying an inventory as high, medium, or low. A standard proportional rating of 55% was agreed upon by committee members at each site as a minimum percent score for selection into the identification pool of candidates. That standard represented the top 25% of the inventory rating. An additional 10% of the inventories were selected for interrater reliability training.

Following training in holistic scoring, the identification committees analyzed the inventories to select those students who exemplified the culturally relevant features of giftedness and the established standard was applied for determining students to be recommended for the identification pool. Thus, a relative performance comparison was made within the cultural groups at each site as opposed to the traditional comparison of performance relative to national norm groups.

Each site required from two to four months to implement the multidimensional screening process on the targeted populations. The variation in training time corresponded with the particular school's needs, including the fact that one school is on a year-round schedule and all teachers are not in school at the same time. At that school, the ID committee members agreed to serve the school during the entire year.

2. Video tapes of class activities. Video tapes document activities during which **SPRING II** students participated in their regular classrooms in science labs designed by teachers and project staff for **SPRING II**. One of the most difficult areas for the teachers was integrating content instruction into an interactive environment that reflected the conceptually based, compacted curriculum developed by the teachers for the students that not only delivered information through varied modalities, but that also encouraged students to demonstrate their learning through their preferred talents.

These videos were significant because they helped capture teachers' efforts in teaching in new ways, they captured students' performance during these lessons, and they offer evidence of the students actively engaged in learning through instruction offered in varied modalities. Teachers used these tapes to observe students and to critique their own teaching. For example, one teacher piloted her new skills in curriculum integration as she integrated math concepts, culture, and music. Students researched and presented information on various of the classic composers, designed and made a mural for the school's wall, discussed their impression of the music and the composers, and compared the lives of the composers as children to their own. The teacher reported, "I was so surprised at how they [the **SPRING II** students] responded to these activities. I never thought they would think about these things. This was important for these students who have had such limited exposure in their lives."

In another video session, students applied what they had learned in class after working with a visiting horticulturist from the New Mexico State University Agriculture farm. With the horticulturist, students learned to identify plants and features of the plants in their communities then, transferred those skills as they took a trip to a local mountain reserve. There students explored vegetation, identified geological formations, took field notes, and integrated their findings during a follow-up class activity. During another video taped activity, students applied information learned from a visiting Environmental Protection Agency (EPA) Water and Soil Resources specialist, as they predicted and examined soil erosion and water absorption in their school sites. This was important because of the importance of agriculture in these students' lives.

Another video-taped session integrated the state's Space Curriculum. With the assistance of a visiting astronomer, students explored outer space, actively participated in designing a space shuttle and space suit, researched areas of their choice, and learned a song based on a mnemonic device for learning the names of the planets. In another session, students applied what they had learned from a visiting geologist, an EPA specialist working at the White Sands Monument, regarding the formation of sand dunes. Students also worked with a visiting archaeologist, who assisted them in exploring early human influence in their community. The archeologist identified adobe structures still evident in their community and the various pottery that originated in their area. Although this activity was not video taped, the teacher provided the lessons used (See Curriculum Manual).

Although the video taping of students and teachers during classroom activity was a valuable tool during this project, it was evident that before this medium can be used in the identification of students' abilities, teachers need more training in the use of the video camera as a tool, and in making and analyzing observations of students' performance.

Characteristics that Distinguished the Project's Gifted Mexican American Children for the Particular Communities

Strategies for Determining Characteristics

As part of this objective, schools were assisted with the establishment of local identification (ID) committees that would focus on identifying characteristics considered important within each community's cultural context. This required the representation and collaborative involvement of parents, community representatives, teachers, and school administrators. However, despite agreement on the make-up for the committee, none of the committees at the participating sites initially had representation from each group. Although parents and community representatives volunteered to be on the committees, their initial participation ranged from functionally nonexistent to sporadic attendance at the training sessions.

At one school site, the parent representative's participation had been restricted to observations of meeting proceedings and there was no community representative. The school personnel at the other site believed that there were no community leaders--much less, anyone interested in participating on a school committee. In response to this dilemma, we helped the schools understand that all communities have gatekeepers and the committees learned how to identify and contact those community persons (for methods on how to identify community gatekeepers see Spradley, 1979). As a result, the committee members at each school agreed to personally visit or telephone the parents and the community representatives to explain the project's objectives. Comments from community persons were "it's about time that the school reach out to us [the community]" and "of course this community has gifted kids." Workshop sessions were designed for both sites to first familiarize school personnel, parents, and community persons with the general characteristics of gifted children and the characteristics of giftedness among culturally different groups, and second, to elicit characteristics of gifted persons from their culture and community.

During the first session, research findings from **SPRING I**, which delineated characteristics of rural, low SES, Appalachian children and current research on Hispanic gifted children, were presented and discussed. The discussions generated served as a springboard for discussing intelligence and generating local perceptions of giftedness. For example, the concept of how intelligence is influenced by the sociocultural experiences of individuals was discussed. Using the concept of "snow" as our focus idea, we talked about how the cultural historical experiences of a community influence what that community values as intelligence, and we examined the concept of snow from the perspective of a person living in New York City, from a person living in a desert area in New Mexico, and from a person living in a rural area of Alaska. We discussed how important it was to solve problems associated with snow in each area and the types of problems one might encounter. The information was compared and contrasted by the group.

In order to more easily understand the variability within the concept of giftedness, the next session focused on Gardner's notion of multiple intelligences. Participants identified their personal preferences for learning and came up with an area or areas through which they felt they manifested their abilities or intelligence. One member's response of "now I understand what you mean" was echoed by others. In addition, teachers' comments of "Yes, I can see this in [student's name] were shared by other teachers. Parents shared students' abilities evidenced at home or in community activities that were not evident in school. Toward the end of the session, everyone was asked to think about a person or persons they considered to be talented or gifted, and to think about why they considered that person gifted. Next they were asked to think about the characteristics someone in their community needed to have to be considered talented or gifted. Everyone's comments were recorded and discussed, and consensus was reached regarding characteristics of giftedness for the particular communities. The characteristics that distinguished gifted Mexican American individuals from the participating communities are shown in Table 8.

Table 8

Characteristics of
Rural Disadvantaged Hispanic
Gifted Children

Detractors

Limited or nonproficient speakers of English
Tend to be passive participants in classroom activities
Tend to focus on instructional process rather than the end product
Unmotivated by routine classroom instruction
Not likely to perform well on standardized tests

Strengths

Are creative in oral storytelling
May score high on math activities, lower on language-related activities and, are inclined to fine arts
Produce written products that may be of high quality in content but poor quality in grammatical form, spelling, and handwriting
Likely to do well with creative and artistic activities and/or ideas
Demonstrate higher order thinking skills in oral rather than written form
Tend to show a preference for the kinesthetic modality

Results

Table 9 illustrates the number of students who scored in the upper 25% to upper 4% on the instruments administered. Writing samples for Anthony students were lost by the school during their move.

Table 9

Student Performance on Identification Measurements

Instrument	Number of Students							
	Top 25%		Top 20%		Top 10%		Top 4%	
	Berino	Anthony	Berino	Anthony	Berino	Anthony	Berino	Anthony
MAT	30	59	23	47	12	24	5	9
Torrance	9	13	8	10	4	5	2	2
Writing Sample	7	n/a*	4	n/a	2	n/a	1	n/a

*n/a = not available

In the Berino School, the district's Multidisciplinary Team met to review students' performance. This group is composed of the district's Diagnostician and other district personnel responsible for reviewing students' performance on instruments measuring eligibility for the various programs. The team met with school administrations and gifted coordinator for the purpose of determining eligibility into the school's and into the district's gifted programs. Students identified into the school's gifted and leadership programs and the **SPRING II** project were those students performing at the top 10% in any measure, the top 25% in the writing samples, two students who received a score of "5" during the holistic scoring process but who did not make the 25% cut-off when scored using the Torrance Creative Writing rubric, and one student included in the program because of the teacher's report of student's marked improvement as she participated in the new science curriculum. Of that total (26 students), 16 students are presently participating in the school district's funded gifted/leadership program and five students participate in the school's leadership component of the gifted program.

During the project, the Anthony Elementary School underwent major reorganization. The fourth through sixth grades were physically moved to a newly constructed site under a new, first-year principal. The teachers and students moved into a site without equipment, books, materials, etc. The new principal and teachers felt that under their present circumstances, they could not continue with the project. However, the top 4% performers in measures administered under the **SPRING II** project were included in the school's gifted program by the gifted program coordinator. At the school, no further action was initiated because of the school's pull out of the project.

Ethnic Focus: Mescalero Apache

Although Mescalero Apache children made up 25% of the enrollment at White Mountain Elementary and Intermediate Schools, only one child had been selected for their gifted program prior to Project SPRING.

To improve the involvement of Mescalero Apache children in gifted programs, several nontraditional quantitative and qualitative identification procedures were used to determine their usefulness in identifying disadvantaged Native American gifted children.

Quantitative Measures

1. Matrix Analogies Test. The Mescalero staff at the school, two teachers' aides and one community liaison, were trained to administer the MAT. Students were pulled out into a separate room and were tested in small groups.

2. Torrance Streamlined Tests of Creative Thinking. The Mescalero staff at the school were trained to administer the tests, and the students were pulled out into a separate room of the school for testing. As a result, the students were visibly more relaxed and willing to participate in the testing.

3. Creative writing samples. The procedures for the writing samples followed that described for the Mexican American population. Mescalero students' writing samples demonstrated cultural influence as well as creative thinking. These students had previously been called non-writers and reluctant writers by their classroom teachers. Yet when encouraged to write without the constrictions of traditional mechanics of writing (spelling, format, etc.), the students were able to produce creative pieces.

Qualitative Measures

In addition to the Matrix Analogies Test and the Torrance Streamlined Tests of Creative Thinking, and the Creative Writing Samples, the following activities were added in order to explore possible alternative methods of tapping into the students' cultural talents.

1. Nonverbal problem solving. This activity consisted of a trapezoid outline onto which students were asked to see how many different ways they could arrange the blocks in the puzzle. They were to record their solutions by tracing the shapes on the design. Students were given square, triangle, and trapezoid blocks to use in solving the puzzle. This activity was chosen because a teacher reported that it appeared that the Mescalero Apache students liked it and made creative designs.

However, results from the activity were not integrated as part of the identification measures because the validity and reliability of the activity are questionable for several reasons. First reason is the scoring of the activity. This activity was scored for frequency: i.e., the number of different solutions. There was no scoring for creativity. Second, there was great variability on how the task was administered. In some classes it was administered as a timed activity whereas in other classes students had unlimited time, including the opportunity to complete the activity after lunch break.

2. Storytelling. This activity was selected to trap into the creative verbal skills of the students by incorporating their rich oral tradition. Students were told to tell a story, "or a myth", following the traditions of Indian people and the activity was video taped. Validity and reliability of the video tapes are questionable and the tapes could not be scored reliably for several reasons. First, teachers carried out the activity using different procedures. For example, in one case, the teacher is observed prompting a reluctant student and leading the student. In other videos, it is virtually impossible to identify the speaker. Another problem area with this activity was that it is unacceptable for Mescalero Apaches to share or divulge their stories or myths "on demand." This is one activity the tribal council feels very strongly about and children learn very early not to share such stories.

3. Creative construction. This activity yielded no useable data. The teachers were inexperienced in using the video camera in their classrooms and the students were reluctant to being taped. Many Native American groups do not permit taping without prior tribal council permission due to religious beliefs surrounding picture taking and/or video taping. Children learn this at an early age and were reluctant to participate without direct prior permission.

4. General questions. This activity yielded no useable data. The teachers were inexperienced in using the video camera in their classrooms. Students were not comfortable with being taped.

Eight Mescalero children were identified as **SPRING** gifted children. Whereas the qualitative approaches yielded no usable data, selection was made on the basis data of the quantitative measures only. Unfortunately, the Ruidoso School District terminated their participation with Project SPRING before a science curriculum could be implemented.

Whereas we were unable to collect data on **SPRING** identified Mescalero gifted students, the project received permission from the tribal leaders to report on the identification and curriculum modifications that had been used at the Mescalero Apache Reservation Elementary School. Our observations on identification procedures for the reservation gifted program follows.

Gifted/Talented Identification at the Mescalero Apache Reservation Elementary School

The school on the Reservation has undergone administrative reorganization. Presently, the coordinator of the gifted program along with the new principal and new superintendent are attempting to identify and document more objective measures in their identification process of gifted Mescalero Apache students. We were permitted to administer the MAT and the Piers-Harris to Native American Mescalero gifted students on the reservation who have been identified as gifted through the school's identification process. The school's coordinator for the gifted program shared the reservation school's identification process and the differentiated curriculum that has been developed for the students in the reservation gifted program. One hundred seventeen students (25% of the school's population) had been identified for the tribal school gifted program.

Information regarding the measures that were used for identification of gifted students initially obtained from the previous coordinator differed from the information we received from the present school staff. Actual measures used were disclosed by the present coordinator and are reported following the initially reported information.

Quantitative Measures

Initially reported information. The Evaluation of Education Skills Test (EEST) is a test of academic achievement similar to the Illinois Test of Basic Skills. It yields information in the areas of math, reading, and language arts. Students in grades three through six and who scored in the top 25% in any of these areas were added into the pool for the gifted program. The top 10% in each grade were identified into the gifted program.

Actual measures. Although the students took the test, the data were not reviewed. As a result, the EEST was not an instrument used in identifying students into the gifted program.

Qualitative Measures

Initially reported information. Students were nominated by school personnel, parents, and community leaders. Experts in the areas of cultural arts (weaving, dancing, healing/medicine), and leadership were to identify outstanding performers and recommend identification into the gifted program.

Actual process. Students nominated by school personnel, parents, and community leaders are identified into the program and work with experts in the areas of cultural arts, leadership, and academics in a pull-out model.

Strategies for Accomplishing Objectives Related to Curriculum Modifications

To find and demonstrate promising science curriculum materials for use with rural disadvantaged and/or ethnically diverse gifted elementary and middle school students.

Indiana
Ethnic focus: Caucasian Appalachian

Participating junior high school science teachers expressed concern that the proposed science curriculum modifications using **FACETS** materials or those developed by William and Mary should not deviate significantly from the required state-mandated curriculum. Their concerns focused on the need to prepare students for their next year's science class and to prepare them for the science facts covered by the state's standardized achievement test. Project staff and science teachers agreed that the science curriculum would consist of the mainstream textbook-adopted materials, with modifications to allow for greater experimental hands-on type of instruction. The curriculum adaptations and methodological arrangements that were made at each of the two Indiana sites follow.

Paoli Jr. Sr. High School 7th and 8th-Grade Science

A special 7th and 8th-grade science class was reserved for **SPRING** identified students. Curriculum modifications included a discovery approach to science, with opportunities for more hands-on learning experience for students. Explicit objectives were for students to become more independent in their work, and ultimately to become autonomous in completing science projects.

1. Example of activities. After a unit on space, students made shoe box "What I Would Need to Survive" space stations. They were allowed 2-3 class periods to work in small groups to make decisions and plan the presentation. Each student was required to share in the oral presentation that was videotaped and presented at the school's "Open House."

2. Weekly experiments. Hands-on experiments that coordinated with the content of the textbook were planned on a weekly basis. The **SPRING** Graduate Assistant would introduce the concept, and the classroom teacher would do follow-up activities.

3. Independent study. Students were given the opportunity to participate in the local and regional science fairs. The science fair involved independent study projects that the students completed in a formal method.

4. Special units. Such units as Acid Rain, developed by Van Tassel Baska, et al., from The College of William and Mary, and Climate Controlled Seed Growth from **FACETS** (Foundations and Challenges to Encourage Technology-Based Science) were implemented. The goals of the problem-based, interdisciplinary units were to have students engage actively in problems of significance, to allow for hands-on learning and discovery, and to let students become aware of their own thinking strategies. These goals tied in with effective teaching strategies for rural disadvantaged gifted students.

Paoli Throop Elementary School 6th-Grade Science

Five 6th-grade classrooms adopted Project **SPRING**'s philosophy by incorporating innovative science curricula into their regular curriculum. A summary of some of the activities follow.

One 6th-grade class did a continuation of the water unit that was started in grade 5. Modifications included putting **SPRING** students in each of the groups in an effort to promote leadership qualities within that group. Successes: **SPRING** students went on to make materials, such as traps, at home to be used in their study. The informal assessment of students' involvement suggested the enthusiasm for the project was enjoyed by all. Weaknesses: Students had trouble organizing themselves; teachers thought the leaders in each group should have had additional structure in the beginning.

The second sixth-grade class completed a year-long study of forestry. They began with observations of trees in their natural setting and wrote poems, drew pictures, etc. A forest ranger was a guest speaker on a field trip to an area of virgin timber and worked with small groups on tree identification. Students planned field trips to area factories and businesses to research use of wood products in their community. They videotaped the trips and made presentations when they returned to school.

Two sixth-grade classes worked together using Gardner's multiple intelligences to develop a thematic science curriculum. They completed monthly activities that lead to an overnight conservation camp. The classes went to Patoka Crawford-Harrison State Forest. Resource people assisted with the two-day overnight expeditions.

The sixth-grade class with the gifted and talented cluster group conducted a field study using the area's characteristic geology as their focus. This was a continuation of the Water Curriculum adopted in **SPRING** I and extended the theme into a more specialized area of study.

Crawford County Jr.Sr. High School 7th and 8th-Grade Science

The existing gifted and talented science class incorporated many of the Project SPRING identified students. This class was taught by a teacher with an endorsement in gifted education who competently adapted and enriched the regular state-adopted science curriculum to meet the learning styles and interests of all students.

Curriculum activities which emphasized application of the scientific method of inquiry and demanded comprehension and understanding of the topics included:

1. Experiments. "Which Sweetener is Really the Sweetest?," "Do Great Northern White Beans Respirate?"

2. Debates. "The Human Genome Project - For or Against?"

3. Identification and collection. Plants, Trees.

4. Projects. "A Plant Cell."

5. Individual research papers. "Where Are The Birds?" "The Devastating Disease - Cancer."

6. Science fair projects. All students enrolled in the gifted and talented science section were required to participate in the science fair. Sample projects included:

   1. "To find out if paper logs will last as long and give off the same amount of heat as natural wood."

   2. "Which of three areas, English, Marengo, Taswell, have the best quality water?"

   3. "Gather eggs my chickens lay and weigh them daily to see if food fed them will affect the weight."

Two **SPRING** students' science fair projects competed in the regional competition at Hanover College, Indiana.

Consistent with the learning styles, interests, and resources **Project SPRING** students possessed, the GT science teacher made the following accommodations:

"When choosing projects, I try to emphasize what they have access to at home rather than something elaborate that they can't get and therefore won't finish. I was very pleased with the ideas they came up with for Science Fair. Many projects centered on animals they raise at home, things they found in the woods, water projects, even cooking experiments."

7. Units. As in Paoli, such units as American Chemical Society Module Nine: "In The Farmlands - Disappearing Farmlands and How Can We Get The Most From Our Land?" from FACETS and selected units from William and Mary were implemented.

Crawford County 6th-Grade Intervention

The Gifted And Talented Coordinator at Crawford County provided enrichment to **SPRING** students and the regularly identified gifted students, at all five elementary schools. Following an inclusionary model, the coordinator typically spent one day a week at each elementary school working closely with regular classroom teachers to extend and enrich the instruction. Some inclass projects the coordinator organized included:

1. Project WILD mini-lessons.

2. Organization of and assistance with Science Fair projects. (More than two-thirds of **SPRING** students participated in the Science Fair.)

3. Demonstration of science experiments, e.g., soil analysis leading into a lesson on soil conservation, followed by a visit from a soil conservationist.

Guest speakers included a scuba diver, an architect, and a World War II expert on the Holocaust. A **SPRING** parent also visited all elementary schools to discuss and demonstrate the medicinal and ornamental uses of herbs found in the Crawford County area.

Other activities included:

1. Odyssey of the Mind

2. Future Problem Solvers

3. Stock-Market Game

4. Mega Skills

In addition, out-of-class activities included:

1. Trip to Washington, DC

2. Children's Theater in Louisville, KY

3. Pioneer Camp in Salem, IN

These out-of-class activities were important to the intellectual development of the children in Crawford County, many of whom would not have had an opportunity to participate without the involvement of the gifted and talented coordinator.

Indiana University's College for Gifted and Talented Youth

A major university experience awarded to approximately one-half of the Indiana **Project SPRING** students was two-weeks of attendance at Indiana University's College for Gifted and Talented Youth. This summer residential program for approximately 200 fourth through twelfth-grade gifted students from around the country provides opportunities for students to attend courses taught by university professors. The students then use the knowledge they have gained from those courses to solve simulated problems that involve time travel, space and sea exploration, criminal investigations, television investigative reporting, and much more.

According to their teachers and parents, **Project SPRING** students who attended the "college" became more self-assured, were better able to defend their positions on discussion of topics, and had become more confident in their academic abilities.

South Carolina
Ethnic focus: African American

The Water Unit developed by Indiana in **SPRING I** was modified to fit into South Carolina's regular science curriculum, which focused on Systems.

Field Trips

In combination with the Water Unit, children took field trips to the ocean or nearby lakes. For many children this excursion was the first time they had taken a boat trip or seen a large body of water.

Each school implemented parts of the Water Unit using the local environmental resources, and modifying it to meet their specific geographic location. Since South Carolina identified children in the early elementary grades, the science content was adjusted to accommodate the cognitive and social development of the children.

Basic topics included: Properties of Water, Condensation, Evaporation, Water Density, Displacement of Water, and Surface Tension.

In groups of four, students developed portable ponds to:

1. Explore a natural community that is very rich and diverse.
2. Use their powers of observation and organizational skills.
3. Learn life cycles--pond life is rich and diverse.
4. Meet and gently handle new organisms.

Extensions

1. How water is cycled naturally through the environment.
2. Water conservation at home and in the classroom.
3. How we recycle water.

4. Threats to our water supplies and aquatic environments.

5. What are some things we can do right now to help preserve and protect this resource for ourselves and other creatures?

Students kept Science Journals and recorded their activities as they participated in field trips, conducted science experiments, interviewed guest speakers, and worked on various aspects of the science curriculum.

Artifact Box

All of the sites liked the Artifact Box activity and used it as part of their instruction. The students gathered natural objects, water samples, pictures, and pamphlets from their particular area to be sent to one of the other sites. As an instructional activity, the teachers conducted a brainstorming session to raise students' awareness of what things would best tell the story of what their area was like for students in another part of the country.

All of the teachers (29) felt that **SPRING** had strengthened their science programs by focusing resources and attention on science and providing staff development on strategies to use with science curriculum.

New Mexico
Ethnic Focus: Mexican American

Science Curriculum as a Framework

The curriculum implemented by teachers in New Mexico builds on the Water Unit developed in Indiana, and includes a variety of teaching methods that are applicable to students with different learning styles. The curriculum utilizes and incorporates the natural environment, community resources, and the cultural diversity of the student population.

Project SPRING II teachers adapted the regular science curriculum by incorporating Gardner's notion of multiple intelligences. It was further differentiated by incorporating concepts already familiar to the students through their culture and community. For example, in the area of multiple intelligences, teachers presented information in various modalities, and students were encouraged to develop their own method of presenting what they had learned.

When developing lessons for the culturally diverse classroom, the traditions and customs of cultures need to be considered. In many Latino households, plants are used for medicinal purposes and are grown at home--an excellent source of information and community resource for teachers! Another aspect to consider is the community in which the students live. For example, the teachers in this project learned how "packaged" lesson plans (as those supplied by book publishers) were often not appropriate for their students. One such lesson required students to record the amount of water collected from an open faucet as they brushed their teeth. In one of the communities in our project, many of the students did not have piped-in water in their homes. Another lesson talked about letting the water run to determine how long it took for the water to get hot. Teachers observed that in the desert, the water already came out of the faucets hot. Thus, it became important to consider the concept being addressed in the lessons and then to adapt the lesson to the students' cultural experiences.

Putting it All Together

The curriculum that was developed for this project was a compacted, concept curriculum. As the 4th through 6th-grade teachers worked together to develop this curriculum, they observed that the topics of land, water, weather, plants, animals, and humans were recurrent themes throughout the three science areas of earth science, life science, and physical science. They decided to develop a matrix with the topics on the Y axis, and the science areas on the X axis. They also decided to include the area of culture on that axis.

Next, the teachers reviewed the state and district science mandated curriculum to insure that the concepts taught were in line with the guidelines. Following the concept approach to curriculum development, the cells within the matrix contained concepts corresponding to the topics and science areas. (See Science Curriculum matrix in **SPRING II** Curriculum Manual.)

This curriculum, then, focuses on a concept approach to learning. This integrated, concept approach to science allows students to develop a meaningful framework for understanding the interrelationships among the several science disciplines. A unifying concept represents a repeatedly occurring theme, such as the agricultural theme of this curriculum that provides a context for explaining facts and events. This model encourages vertical as well as horizontal development among the topics and the different science disciplines, and the teachers were able to plan across and within science areas. As a result, the students' and the teachers' individual and collective experiences were broadened with the extent of the diverse topics and science disciplines that were covered in the curriculum. Numerous lab experiments chosen to represent the various characteristics of the conceptual schemes model curriculum were conducted. (See Curriculum Manual for examples.)

Ethnic Focus: Mescalero Apache

As already mentioned, the Ruidoso School District terminiated their participation with Project **SPRING II** before a science curriculum could be implemented. Permission was obtained from the tribal leaders to observe and report on the curriculum modifications that had been made for gifted students at the Mescalero Apache Reservation School. Those observations follow:

Gifted Curriculum at the Mescalero Apache Reservation School

The curriculum for the students in the gifted program depends upon the areas in which they are participating. Students can be nominated into more than one area.

Cultural/Fine Arts - grades 7-12. Students in this program participate in an Art Contest, Annual Art Display, and in community projects regarding arts. They work with a mentor following an apprentice model in areas targeting the following objectives:

- To renew the art of clothing preparation following their heritage.
- To renew the traditional ways of living and the art of food preparation.
- To renew the art of Tepee Pole cutting following their heritage.
- To renew the art of flute making.
- To renew the art of beadwork preparation.

Students participated in their focus area from one to four hours per week. Included is Apache language training. The methods of evaluation include student participation, finished products, written assignments, display of products, and a final grade.

Cultural/Fine Arts - grades K-4. Students in this area participated in art contests, art displays and other school art projects. This is an inclusive program that occurs within the regular classroom curriculum for 1 to 5 hours per week. Included is Apache language training. Instructional objective is that students will learn their cultural dances, music and other activities traditional to the Mescalero Apache Native Americans. The method of evaluation includes teacher observation and teachers' evaluation for student participation and effectiveness of the Apache language and cultural traditions.

The coordinator of the gifted program reported that to date they have not been able to develop an effective indicator measure of giftedness in this area of cultural/fine arts. This is an area of concern because of the pressure they are receiving from their funding source (U.S. Government) to structure their activities in more objective ways that can assist them to identify gifted and talented students in this area.

Leadership. Students identified into this area investigate and discuss issues impacting the community and engage in representing the school in local, state-wide activities. For example, the students in this group participated in video interviewing and reporting as they investigated the issue of the nuclear waste dump site proposal and the issue of casinos on Native American reservations. The students in this group also participate in school student counsel and student governance. Students develop skills in the areas identified with leadership behaviors such as:

- Use of technology for presentations
- Develop verbal and nonverbal communication skills
- Develop public speaking skills
- Develop critical thinking skills and the use of problem solving paradigms to assess and solve problems
- Develop team building skills
- Develop skills in assessing strengths and weaknesses of organizations and groups
- Develop skills in goal setting, project management, time management, and money management

Students participate in the Leadership program from 10 to 15 hours per week. Evaluation is individualized and each item is rated on a Likert scale from 1 - Not Attempted, to 4 - Competent, Needs No Supervision. The coordinator of the gifted program reported that to date, they have not been able to develop a measure of giftedness in this area.

Academic. Students identified into this area participate in the state's Odyssey of the Mind (OM) competition. The students in this program chose a problem to solve from an area within the OM program and, as part of a group, will design a solution to the problem. Each group has a "coach" to guide them during the year. Students then present their problem and solutions and participation in the state annual competition. Students work with groups during homeroom/activities periods at school. Typically, students spend approximately 2½ hours per week on their problem.

Objective 4

To develop preservice and inservice science training materials and procedures appropriate for the needs of rural disadvantaged and/or ethnically diverse gifted elementary and middle school students.

Curriculum meetings and workshops were held for all 4th and 5th-grade teachers at their respective project schools in New Mexico and South Carolina. Curriculum differentiation based on Gardner's multiple intelligences and methods for preparing and implementing thematic units were topics included at each school. As indicated earlier, the Water Unit from **SPRING I** was modified and implemented at each site.

In South Carolina, a key teacher or administrator at each school was available to assist teachers in implementing the unit whenever such assistance was required. Teacher and administrator turnover at the New Mexico schools did not allow for similar day-to-day project assistance.

Several group workshops were held for the 7th and 8th-grade science teachers from the two Indiana junior high schools to familiarize them with the **FACETS** units. The teachers were also sent to The College of William and Mary for a week-long workshop on the William and Mary gifted science curriculum. Once the science curriculum modifications were ready for implementation, a science specialist from Indiana University served as a consultant to the project school science teachers. In the first year of the project, a science consultant was sent to the sites to assist project science teachers one day per week.

Telecommunications

To overcome rural distance education problems with computer and video technology.

Connections and Equipment

Indiana. The consolidated elementary school in Paoli and the five elementary schools in Crawford County were provided with computer equipment and dedicated telephone lines during **SPRING I** (1990-1992). Computer usage and the Internet continued at these two sites for the first year of **SPRING II** in Crawford County, and for the duration of the project in Paoli. Additionally, dedicated telephone lines were installed in the 7th and 8th-grade science classes at the junior/senior high schools in Crawford County and Paoli. These two schools provided IBM compatible computers, and **Project SPRING** installed 14.1 modems and provided telecommunications software.

In October 1993, the director of Educational Information Systems (**IDEANET**) from the Indiana Department of Education accorded the South Carolina and New Mexico sites permission to connect to **IDEANET**, which allowed access to the Internet. **Project SPRING** installed an incoming 800 line at **IDEANET** for use by South Carolina and New Mexico. Paoli and Crawford County schools already had this capability.

South Carolina. In South Carolina, three schools were involved in **Project SPRING**: Daisy Elementary School, Elloree Elementary School, and Estill Elementary School. At each of these schools, administrators reported that computer technology was limited and could not be assigned to Project **SPRING**. Indiana University agreed to provide the following equipment to the three schools:

4 Amdek Video 300 Monitors

4 IBM PC Floppy Disk Drives

This equipment, although outdated, gave the South Carolina sites reasonable access to the Internet. As the project developed, two of the three schools replaced this equipment with more efficient models. Telephone lines and 2400 baud modems were installed to access **IDEANET** in Indiana. Telecommunications software was provided by **Project SPRING**.

New Mexico. In new Mexico, three schools participated in **Project SPRING**: Berino Elementary School, Anthony Elementary School, and White Mountain Elementary School. These schools had either a computer lab or designated computer space. **Project SPRING** installed dedicated telephone lines at each of the schools, and efficient 9600 baud or 14.1 modems. Telecommunications software was also provided by **Project SPRING**, allowing each site access to **IDEANET** in Indiana, using the 800 line.

Training - Teachers and Students

Indiana. An introductory **IDEANET**/Internet workshop was held for teachers, students, administrators, and parents at the Indiana University School of Education. The School of Education, with state-of-the-art computer equipment and labs, gave each of the 30 participants the opportunity to actively explore IDEANET and the Internet. Mike Huffman, Director of **IDEANET**, led the workshop, along with telecommunications support personnel from Indiana University. (See Appendix A for Workshop Evaluations.)

At this workshop, via a conference call, instructions on accessing and using **IDEANET** were also communicated to the New Mexico **SPRING** staff.

Project SPRING staff and consultants met with 7th-grade science teachers to develop curriculum intervention for **Project SPRING** students. During this meeting, teachers learned how to access the Internet efficiently and to retrieve specific science information and material for use with their classes. Several teachers used this system daily and developed significant mastery in this area. These orientation workshops were followed up by weekly or monthly visits to the schools, with more direct one-to-one assistance on accessing **IDEANET**. Additionally, an 800 hotline was available at the Indiana Department of Education to answer specific questions dealing with equipment or information retrieval.

Although many teachers participating in **Project SPRING** were not proficient in computer usage and accessing the Internet, each of the two schools did have at least one teacher who was experienced with computers and available as a resource.

South Carolina. Teachers and students in South Carolina did not begin telecommunications training until late in the second year of the project. This circumstance was due to the following factors: (a) older computer models were not compatible with recent software programs and/or modems, (b) repeated equipment failure in connecting with **IDEANET**, and (c) the absence of a reliable or knowledgeable person in computer/telecommunications at each of the three sites. This last factor, perhaps more than any other, impacted the extent to which teachers and students were able to access the Internet. Beginning in February 1995, two of the three schools began using the telecommunications, and shortly thereafter the third school successfully connected.

New Mexico. Beginning in March 1994, project staff in New Mexico met with teachers at each of the school sites to explain **IDEANET**/Internet access. Training was conducted with teachers and staff at White Mountain Elementary School. However, computer use and Internet access were coordinated by the computer/telecommunications specialist, who worked directly with students on a regular schedule.

Berino Elementary School joined **Project SPRING** in November 1993. Computer use and telecommunications training was delayed while project staff attended to identification procedures and curriculum intervention. In 1995 eleven workshops focusing on telecommunications were conducted with teachers at Berino Elementary School.

Anthony Elementary School began training teachers in computer use and telecommunications in March 1994, with the expectation that teachers would be computer proficient by October 1994. In September 1995, teachers and **Project SPRING** students were transferred to Loma Linda, a new intermediate school. Teachers reported being overwhelmed by the move, of not having materials and equipment to conduct classes. Under such conditions, they felt it wold be impossible to continue to

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develop an innovative science curriculum and continue an effective telecommunications system. They withdrew from **Project SPRING** in the Autumn of 1995. **Project SPRING** staff continued to support teachers' efforts to deliver a science curriculum grounded on cultural/environmental conditions, and provided teachers with materials and equipment.

Implementation

Indiana. **SPRING** students in Indiana were quite proficient with accessing the Internet if they had sufficient time to explore. Their previous participation in **Project SPRING I** had provided background in making the connection to **IDEANET** and logging on. Once logged on, students selected topics from the complete Internet menu, or a limited edited menu highlighting topics most often requested by students. Students at the junior high level in Crawford County and Paoli were able to access information with the help of their science teacher, or, in Crawford County, the media specialist who had expertise in telecommunications and expressed an interest in working with **Project SPRING**.

Students at the junior high school level attend classes for 50 minutes, moving from one class to the next. There are no self-contained classes or block classes (two or more combined periods allowing integration of subjects). This scheduling arrangement limited the extent to which students could and did use the telecommunications. Students used the computers during their regular science class time, during lunch, or during other classes if they received permission from teachers. Because teachers considered their course content to be at least of equal significance to other areas of the curriculum, they were reluctant to excuse a student from class to go to the library, even though students may well have completed the assignments.

With 20 or more students enrolled in each science class, and with equipment limitations (one computer with modem and telephone line), skill development and computer proficiency were seriously hindered. Moreover, the opportunity to retrieve information and maintain communication with pen pals at Indiana University and with **Project SPRING** students in New Mexico and South Carolina was severely restricted. Even with the installation of two additional telephone lines in the library, Crawford County **SPRING** students were constrained from using the system when teachers would not allow them passes to the library.

Limited communication was maintained between Indiana University science education majors and **SPRING** students at each of the two sites. Initially, this was well received by Indiana University students and **SPRING** students. However, because of the restrictions noted above, which frustrated communication, messages were infrequent, not received in a timely manner, and often went unanswered at Crawford County and Paoli.

Some of these same Indiana University students later served as science fair judges in Crawford County and Paoli, and met students with whom they had communicated.

Communication was established between Paoli Elementary School and White Mountain Elementary School in Ruidoso. Fifth-grade students were each assigned a "Key-Pal" and corresponded for a short period of time, before White Mountain Elementary withdrew from the project.

South Carolina. Indiana University provided a computer for each school site to be used for **Project SPRING**. These computers were older models no longer used at the university. The computers all needed repairs. This was accomplished by early 1994. The school sites attempted to secure technology assistance. After many attempts, the schools were unable to link up. Finally in late 1994, Converse College worked out the glitches and established contact with **IDEANET**. In January 1995, during a site visit, a member of the project team was able to help the schools get online. Students then used the connection until December 1995.

Media specialists in South Carolina appeared to be the primary beneficiaries of the technology made available. They were able to access information from the Internet, and it appears they accessed on a regular basis.

The biggest problem with the computer technology was lack of expertise at the school sites or in the school districts to help in solving the problems. South Carolina has lagged behind many other states in the use of technology. The target date to have most school districts linked to the Internet is the 1996-97 school year.

New Mexico. With the exception of one teacher at Berino, none of the teachers had ever accessed the e-mail system that was in their school libraries. The main reason for this lack of use was the need for training for the teachers on the telecommunications system. After-school training sessions for the teachers were organized, and explicit step-by-step instructions were written for teachers to assist them with accessing the e-mail account. Unfortunately, even after numerous training sessions, the e-mail system was only used when a **Project SPRING** staff person made a weekly site visit. Equipment failure and/or connection difficulties further added to teachers' frustration. With only one 800 line to **IDEANET** for schools in New Mexico and schools in South Carolina to access, the result was sometimes a busy signal.

It was then suggested to the teachers that the best way to utilize the e-mail/telecommunications system was to have the students write letters, in groups of four or five, to students at other schools. A **SPRING** staff person would then connect to the school's e-mail account and call students to the library to type in the message. In an effort to give each class time on the e-mail system, a rotating schedule was devised. Most classes had one 30 to 45-minute period per month in the library on the computer.

The most successful letters were those created in class, ahead of time, under teacher guidance. Since the majority of the students did not have keyboarding skills, the process of typing their letters was slow. The excitement generated with these letters was truly outstanding. Letters were written in Spanish and English. Students were not only concerned with having a letter that was well constructed and followed proper letter format, but, most importantly, with making new friends.

White Mountain Elementary School utilized e-mail and the Internet extensively. Beginning in August 1994, the 800 line to **IDEANET** was accessed an average of four times daily, and time online ranged from one minute up to 340 minutes. This activity continued until March 1995, when White Mountain Elementary School discontinued participation in **Project SPRING**. White Mountain Elementary School did have a fully equipped computer classroom and an assigned computer specialist to assist teachers and students.

Video Technology

The project provided camcorders to each participating school in South Carolina and New Mexico. Training sessions in the use of the camcorders was provided at each site for the teachers involved in the project. Video technology was used to provide records of many of the project activities. For example, tapes were made of teacher training workshops, storytelling by children, Pioneer Day interviews, classroom set-ups, and student reports of projects. As in **SPRING I** - Indiana, **SPRING** children produced video documentaries about themselves and their families. After receiving instructions for writing scripts, producing a storyboard, operating a camcorder, and conducting an interview, students took the camera home to produce a 30-minute documentary. In South Carolina, the wear and tear on the one camera at each school required numerous repairs. Since the repair shops were a considerable distance from the school, a great deal of time was lost. As a result, Estill was not able to complete their documentaries. New Mexico fared even worse since, fearing breakage or loss, only one teacher allowed the children to take the camera home. As a result, a total of four documentaries were produced in New Mexico.

Strategies for Accomplishing Objective Related to Parental Involvement

To develop procedures for involving parents in the identification and programming for their children.

Indiana

Because gifted and talented coordinators in Crawford County and Paoli reside in the community, they are favorably situated to interact with parents of **SPRING** students. They give advice and make recommendations to parents and grandparents regarding the welfare of **SPRING** students; they belong to the same church; they may participate in similar activities, attend school board meetings, or see one another at the grocery store. These are all legitimate ways for parents to gain information about their child and **Project SPRING**.

Whereas Indiana **SPRING** children had already been identified in **SPRING I**, parents were no longer needed to assist in the identification process. Parent involvement, therefore, shifted to career selection, high school graduation, and possible college attendance.

Contact was made with the Indiana College Placement and Assessment Center (ICPAC) at Indiana University. ICPAC provides educational guidance and counseling to students via an 800 "hotline" and frequent mailings on such topics as: Careers, Choosing a Postsecondary School, Study Skills, and Advice from Hoosier College Students. In addition, ICPAC offers parents information on Financial Aid, a Parent Series, and Benefits of Education. **Project SPRING** utilized ICPAC as a resource to provide support to parents and students. At the end of 8th grade, 14 **SPRING** students had enrolled in ICPAC's 21st Century Scholars Programs, a state-sponsored program, whose mission is to encourage college attendance among economically disadvantaged students. Eligible students must register by the end of 8th grade, must maintain a C average throughout their high school career, pledge not to do drugs, and keep out of trouble with the law. Upon graduation, students are awarded a tuition scholarship to attend a state institution of higher education. When one considers that almost none of the parents of **SPRING** students had attended college, fourteen college-committed students at this time is encouraging.

South Carolina

The parent information sheet provided the first introduction to the **SPRING** project. information was solicited from all parents about their children. the original information sheet from the first **SPRING** project at Indiana was modified at the request of the South Carolina site teachers, with pictures and colored paper used as attention getters. To insure a reasonable rate of return, prizes were provided to any child who returned a completed survey. This strategy proved to be successful, with a return between 60 and 70%.

Parent meetings were then held at each school to obtain impressions regarding giftedness from an African American perspective. The characteristics most often cited were, "draws, sings, dances, teaches other children, tells stories, reads a lot, very outgoing, catches on quickly," etc. these characteristics, along with researched ones, were incorporated into the identification procedures.

After identification had been completed, meetings with parents of **SPRING** students were scheduled at all three school sites. At these meetings the identification process and possible curriculum modifications were fully explained and questions were answered. parents were then surveyed for topics of interest at further meetings.

To encourage attendance at these meetings, children's paperback books were given to those parents who attended, baby-sitting services were provided, and snacks were served at the meetings. Attendance at Daisy and Estill was poor, with only 5-6 families at each site, while attendance at Elloree was good, with 19 families represented. At that site, the gifted and talented coordinator had personally called a number of the parents who had telephones.

On the basis of the survey conducted at the parent meetings, it was determined that the topic of most interest to the parents was getting their children into college, i.e., what courses they need to take in high school, etc. Most of the parents do not have college degrees. Toward the end of the project, parent meetings were held in Estill and Elloree to address the topic of college attendance with a high school counselor. The Elloree meeting was well attended, but the Estill meeting had only four families in attendance. Scheduling conflicts prevented a parent meeting at Daisy.

Additionally, parents appeared on the video biographies that were completed during the project and through interviews conducted by selected students. Many efforts were made to inform the parents about the program and involve them in their children's education. As demonstrated at Elloree, parent involvement was successful where leadership at the school level was provided and personal contact was make with the parents.

New Mexico

Parents were directly involved in generating ideas about gifted behaviors specific to their communities. These gifted behaviors or characteristics became one of the assessments that was used to identify a population of children for **Project SPRING**.

Identification Committee members made personal contact with parents to explain the purpose of **Project SPRING**, and subsequently workshops for parents, community people, and teachers were conducted to familiarize them with the characteristics of gifted children in their community.

At one school site, the parent response to an identification inventory requesting information about their child was 80%, which indicates that parents were interested in their child's academic development. However, this level of interest did not transfer to advocacy in the school. There is little evidence that parents of **SPRING** students participated any more or less than other parents in school functions.

EVIDENCE OF GOAL ACCOMPLISHMENTS

External Evaluation Report of **SPRING II**

Project Evaluator - Samuel Guskin, Ph.D.

The evaluation of **SPRING II** has included both internal and external and both quantitative and qualitative strategies. Project coordinators and evaluators in South Carolina and New Mexico were responsible for organizing, collecting and reporting on findings at their sites while the overall Project Evaluator and a research associate were responsible for the quantitative data analysis for the Indiana sites, and for completing analyses for other sites and integrating the data and reporting from the three states. In addition, the overall Project Evaluator carried out qualitative interviews with participating teachers and gifted and talented project coordinators, and available students, parents, and administrators at all sites during the final months of the project.

I. Analysis of Quantitative Data on **SPRING** Identified Students in Indiana, South Carolina, and New Mexico

In Table 9, mean scores on major variables are presented for **SPRING II** students in all three states. Indiana scores for **SPRING II** students during **SPRING** I are presented as well to enable comparison of their performance with those in other states at similar ages, though South Carolina students were approximately a year younger than Indiana and New Mexico students at pretesting, intervention, and post testing. For simplicity of presentation, data from the two cohorts and individual schools at each site are combined. Where significant cohort or school differences have been found, these will be reported. Similarly, where total scores are available on a measure for more than one site, these are shown rather than subtest scores, though important variations in subscores will be mentioned.

With the exception of the Torrance scores for New Mexico, the samples seem to perform remarkably similarly on the common tests. Since New Mexico used a somewhat different scoring procedure for nonverbal elaboration, a second comparison was made with these scores removed to give "adjusted" total scores. The difference between New Mexico and other samples was no longer significant. The somewhat lower scores of the South Carolina sample on the Test of Basic Process Skills (**BAPS**) a measure of problem solving may be accounted for by the fact that they took the measures in 3rd and 4th grade, compared to the 4th and 5th grades for New Mexico and the 6th grade for Indiana. The science attitude measure, however, did not differentiate between Indiana students who took the measures initially in the 7th grade compared to the 3rd grade for South Carolina.

Table 9

A Comparison of Group Means on Major Variables for Indiana, South Carolina, and New Mexico Samples

Site	Indiana			South Carolina		New Mexico		Significance			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Pre II vs Post II			Comparable Ages
Test	Pre I	Pre II	Post II	Pre II	Post II	Pre II	Post II	IN 2-3	SC 4-5	NM 6-7	Pre I Indiana (1), Pre II South Carolina (4) and New Mexico (6)
Torrance Total	69.6	85.4	61.7	64.0	56.6	40.7	–	X	NS	–	IN,SC > NM
Torrance Adj.	35.1	48.5	34.1	36.8	32.5	32.4	–	X	NS	–	NS
Creative Writing	9.8	7.7	9.7	10.4	9.2	10.1	–	X	NS	–	NS
Piers Harris Self Concept	59.4	65.8	67.3	–	58.3	–	–	NS	–	–	–
Intel/Ach	13.3	14.1	13.8	–	13.8	13.3	13.9	NS	–	NS	NS
Science Attitude		84.4	80.5	82.1	83.2	–	–	X	NS	–	–
MIPT*		19.6	20.5	–	–	–	–	NS	–	–	–
BAPS**		27.7	30.1	19.9	23.3	24.6	27.4	NS	X	X	NM > SC
Achievement 1*^		74.1	67.0	57.5	41.9	39.4	–	X	NS	–	SC > NM
Achievement 2*^		67.9	63.5	–	–	–	–	X	–	–	–
Cognitive Aptitude*^		73.9	67.3	80.6	–	77.6	–	X	–	–	NS
Grades											
English		2.8	2.6	3.3	2.9			X	NS	–	–
Social Studies		2.6	2.4	3.3	3.1			X	NS	–	–
Science		2.8	2.4	2.9	3.0			X	NS	–	–
Math		2.7	2.0	3.3	2.8			X	X	–	–

*(MIPT) Integrated Process Skill Test

**(BAPS)Test of Basic Process Skills

*^Percentile ranks are reported but these are on different tests for different samples:
Achievement 1 is ISTEP for Indiana, Stanford Achievement Test for South Carolina;
Achievement 2 is CTBS (Comprehensive Test of Basic Skills) for Indiana
Cognitive Aptitude is measured by the CSI (Cognitive Skills Index) in Indiana, Ravens in South Carolina, and MAT (Matrix Analogies Test) in New Mexico.

A. Quantitative Findings - Indiana

Creativity

Creative Writing appears to be the only major measure on which Indiana **SPRING** students showed statistically significant gains from their 6th grade to 8th grade scores (F=16.9, p>.0002, df=1,42). However, this is largely a return to pre-**SPRING I** scores. The pattern held for all of the five subscores though the gains reached statistical significance only for originality and the two elaboration scores (See Table 10). It may be that students feel pressure to develop more basic writing skills when they are finishing elementary school and beginning junior high school and are thus less likely to take risks until they feel confident in their skills.

In contrast, **Torrance Creativity** scores significantly dropped from 6th to 8th grade (F=60.5, p>.0001, df=1,45). Significant drops also occurred for four of the six subscores, excluding nonverbal fluency and flexibility (See Table II). For Verbal Originality and Nonverbal Elaboration the post test scores for **SPRING II** were even lower than the pretest scores for **SPRING I**. It is not clear how much of these changes were due to the retesting effects or with variations in what students feel is expected of them over age and school settings. Students may feel more pressure toward normative behavior as they progress through junior high school. In addition, exposure to gifted and talented curriculum changes after elementary school.

Self-concept

Although there were only limited increases in Piers Harris Self-Concept scores during **SPRING II**, the combined increase from the pretests on **SPRING I** (4th grade) to the post tests at the end of **SPRING II** (8th grade) were sufficient to make the overall gains in self-concept statistically significant (F=16.5, p>.0002, df=1,46).

Achievement

Standardized achievement and intelligence scores generally dropped relative to age or grade norms during **SPRING II**, falling closer to the national or state mean on the tests (Cognitive Skills Index [**CSI**]: F=7.9, p>.008, df=1,37; Indiana Statewide Testing for Educational Progress [**ISTEP**]: F=11.8, p>.001, df=1,45; Comprehensive Test of Basic Skills [**CTBS**]: F=4.7, p>.03, df=1,46).

One interpretation of the drop in scores is that the middle school intervention was less effective than the elementary school intervention in motivating more general interest in school. A second explanation might be that testing at higher grade levels makes greater demands for more traditional learning than for creative problem solving. A final possibility is that the identification results in students being placed in more demanding classes for which they are not ready, such as gifted and talented English or science.

Some of these drops in standardized achievement and aptitude scores were influenced by the particular school students were in. For **ISTEP** scores, only Crawford showed the drop in achievement test scores. Since the two school systems differ greatly in their organization as well as in the way **SPRING** was carried out, a number of interpretations are possible. The most obvious school structure difference is that Paoli students remain on the same unified campus, a few hundred feet from their previous school when moving from elementary to junior high school, while Crawford students moved from small schools in different communities to a single unified school in a different location. The shift may have resulted in a more difficult academic adjustment for the students in Crawford County. In Paoli, being on a common campus also enabled much greater coordination between the **SPRING** intervention at the elementary and secondary levels.

Science

Perhaps the most disappointing finding of the quantitative data for **SPRING II** in Indiana was the lack of increase in science scores on science problem solving and an actual decrease in science attitudes as well as in some standardized science achievement test scores and grades in science. Perhaps it is in science that the contrast is greatest between the excitement of such elementary interventions as the Water Curriculum and the more traditional secondary school teaching of science. Another explanation might be that the new science approach of **SPRING II** was not implemented in a way which led to motivated and effective learning. One further possibility is that the greater emphasis on preparation for standardized testing competed with the more discovery oriented approach of **SPRING**.

Table 10
Indiana Spring Students Mean Performance on All Creativity Measures

Measure	Time of Testing		
	Pre Spring I Grade 4	Post Spring I Pre Spring II Grade 5,6	Post Spring II Grade 8,9
TORRA NCE			
Verbal Fluency *	9.9	14.8	9.3
Verbal Originality *	4.1	8.1	1.2
Nonverbal Fluency	10.0	10.4	9.9
Nonverbal Flexibility	6.1	8.8	8.8
Nonverbal Originality *	5.2	6.3	4.9
Nonverbal Elaboration *	34.6	36.9	27.6
Total Score *	69.6	85.4	61.7
CREATIVE WRITING			
Fluency	2.0	1.7	1.9
Flexibility	1.9	1.6	1.8

Originality *	2.0	1.4	2.0
Elaboration 1 *	2.0	1.5	1.9
Elaboration 2*	1.9	1.4	2.0
Total Score *	9.8	7.7	9.7

* Significant difference between means from pre to post **SPRING II**

SPRING II Comparisons of Indiana Students Who Had Benefitted Most from SPRING I with Those Who Had Benefitted Least

Table 11 presents significant differences between those students who were identified as benefitting most from **SPRING I** in Indiana by their GT coordinators with those who were seen as benefitting least and those who were not placed in either category. Case studies of these students are shown in Appendix A.

Table 11
Significant Differences on SPRING II Between Students Who Benefitted Most from SPRING I (B), Benefitted Least (L), and Other (O) Spring Students

Measure	Time	Benefit Most	Benefit Least	Others	Sign
Torrence Creativity					
Nonverbal Fluency	Pre I	10.9	10.2	9.4	
	Pre II	12.6	10.0	9.3	B>O
	Post II	11.1	8.7	9.5	
Piers Harris					
Total Score	Pre I	61.1	45.8	61.3	B,O>L
	Pre II	67.9	61.2	65.5	
	Post II	67.8	61.8	68.2	
ISTEP					
Reading Total	Pre II	60.3	53.9	53.5	B>O
	Post II	58.0	56.3	52.2	
CTBS					
Total Score	Pre II	60.5	53.4	53.5	B>O
	Post II	58.6	51.8	52.1	B>L,O

MIPT					
ID Variables	Pre II	4.3	2.1	3.7	B>L
	Post II	4.8	4.4	3.5	
Data Tables	Pre II	2.2	0.8	1.3	B>L
	Post II	1.6	1.3	1.0	

Creativity

Those who were seen to benefit most from **SPRING I** showed similar patterns of gain on creative writing scores and drops on Torrance scores during **SPRING II** as those seen as benefitting least. However, Torrance creativity scores (though not creative writing scores) were generally higher for those benefitting most (reaching significance for nonverbal fluency in 6th grade).

Self-concept

While **SPRING** students as a whole had gained in self-concept, the gain was greatest for those who had been seen as benefitting least from **SPRING I**. (Those who had appeared to benefit most and least during **SPRING I** had been found to differ considerably on pretest self-concept at grade 4. By grade 6 and continuing through grade 8, these differences in self concept were no longer statistically significant). It may be that the students who had less confidence in themselves at the beginning of the project were less ready to take advantage of the initial opportunities given them but had gained confidence in themselves over the course of the project, which was not yet reflected in teachers' and coordinators' views of them at the time they were identified as benefitting least.

Achievement

Although the **SPRING** group as a whole dropped in standardized achievement test scores, those who were seen as benefitting most from **SPRING I** maintained higher achievement test scores than other **SPRING** students throughout the middle school period.

Science

Differences appeared in **SPRING II** science scores for those who benefitted most and those who had been seen to benefit least from **SPRING I**. At the beginning of middle school, benefitters showed higher scores on some science problem-solving measures (on **MIPT**) but nonbenefitters caught up by 8th grade. It is possible that while these students were unable to gain as much from the more self-initiated activities in the **SPRING I** curriculum, the more structured demands of the science curriculum of the middle school enabled them to gain skills and knowledge earlier gained by those who benefitted from **SPRING**.

B. Quantitative Findings - South Carolina

SPRING students showed significant gains in scientific problem solving as measured by **BAPS**. Students at Daisy showed the greatest increase, Estill the smallest increase.

Almost all other findings were negative, including drops in nonverbal flexibility and flexibility in creative writing, decreases in language measures on a standardize achievement test, and a drop in Math grades. Even science attitudes showed a drop in the area of learning content.

Exceptions to the generally negative trend were Daisy showing a slight increase in attitudes toward learning science content and Estill showing an increase in social science and science grades. The greatest decreases were in Elloree on Torrance scores and on attitudes toward learning science content and in Daisy on drops in grades in all four areas.

Comparing Those Who Benefitted Most, Those Who Benefitted Least and Those in Neither Category

Of the 72 **SPRING** students in South Carolina, 11 were specifically noted by their teachers as having benefitted greatly from **SPRING** and 6 as having benefitted little. Case studies of those students are shown in Appendix B. These two groups were compared on other measures with those who were not specifically noted in this regard (See Table 12). Generally, all three groups showed the same trends on changes from pre to posttests, increasing in **BAPS** scores and decreasing in achievement. Two exceptions were on subscores: Torrance originality, where benefitters and nonbenefitters tended to gain, while other subjects tended to drop; and Stanford Reading, where benefitters gained while the other two groups dropped. Because of the small number of subjects involved in the benefitting most and least groups, it is hard to interpret these findings.

Though there were few statistically significant differences in change scores between benefitting most and other groups, there were a number of measures on which the groups differed on pretest or posttest or both. Because of the small samples of high and low benefitters, the two groups rarely had statistically significant differences from one another but more often differed from all other **SPRING** students. The most common finding was that those benefitting least performed more poorly on school grades than other **SPRING** students. This occurred for math, science, social studies, and English grades. On all four of these measures, surprisingly, those benefitting fell between the other two groups, differing significantly from nonbenefitters only on English grades and from other **SPRING** students only on science grades.

The only other significant benefit group differences were on the Torrance Creativity measure, where those benefitting most outperformed the other two groups on Nonverbal Fluency and on the pretest Creative Writing Elaboration measure where those benefitting least performed significantly more poorly than the other group.

Table 12

Significant Differences on SPRING II Between South Carolina Students Who Benefitted Most (B) from SPRING II, Benefitted Least (L), and Other SPRING Students

Measure	Time	Benefit Most		Benefit Least		Others		Sign.
		N	Mean	N	Mean	N	Mean	
Torrance Creativity								
Nonverbal Fluency	Pre	11	13.64	4	11.0	36	10.94	B>O
	Post	11	12.00	4	11.3	36	10.44	
Originality	Pre	11	3.9	4	2.5	36	5.6	
	Post	11	6.1	4	3.8	36	4.2	*
Creative Writing								
Elaboration	Pre	5	2.2	3	1.0	26	2.1	O>L
	Post	5	2.2	3	2.0	26	2.1	
Stanford Achievement								
Reading	Pre	7	41.9	5	41.2	38	52.2	
	Post	7	53.9	5	20.4	38	43.7	*
Grades								
Math	Pre	9	89.8	5	81.2	44	91.1	–
	Post	9	81.7	5	71.2	44	87.9	O>L
Science	Pre	9	76.2	5	65.8	44	92.4	O>LB
	Post	9	82.3	5	67.8	44	90.1	O>L
Social Studies	Pre	9	70.8	5	63.3	24	93.1	–
	Post	9	84.0	5	47.7	24	88.1	O>L
English	Pre	9	89.4	5	79.0	44	93.2	BO>L
	Post	9	83.0	5	69.2	44	88.5	O>L

*Torrance Originality and Stanford Reading scores showed significant interactions between time and benefit though there were no significant differences between benefit groups at either pre or post testing. On both measures, Others score higher on the pretest than Benefit most and Benefit least students while on the posttest benefit most students score higher than others and benefit least students.

Interpretations

The **BAPS** increases suggest that either the intervention or ordinary science teaching helps students learn how to think scientifically. The lack of improvement in science attitudes is disappointing as are the generally negative results in both achievement and creativity areas. These latter findings might be explained by the fact that performance in these areas may have been an important part of the selection process with scores showing a typical regression effect, coming closer to the standards in upper grades. It should not be seen as surprising that those seen as benefitting least from **SPRING** had poorer grades than others.

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C. Quantitative Findings - New Mexico

In New Mexico, changes in performance were measured only for Berino school, the other schools dropping out of involvement at various stages. Significant gains were found on the **BAPS** but not on the Piers-Harris Self-Concept Scale's Intellectual and School Achievement Subtest, the only measures administered on both occasions. The gains on the **BAPS** occurred for students whose teachers chose to participate as well as those who did not choose to participate after taking part in inservice training.

Interpretations

The New Mexico staff report that some "nonparticipant" teachers were actually implementing the interventions that they had been exposed to during inservice training. Thus, they interpret the findings on the **BAPS** as signs of the effectiveness of the curriculum interventions.

D. Summary Quantitative Findings

The quantitative data analyses suggest that the elementary school level **SPRING** interventions improve scientific problem-solving skills for **SPRING** students. **SPRING** students did not seem to improve in other areas and even showed decrements in some specific measures of achievement and creativity as well as scientific attitude.

The follow-up study of junior high school students in Indiana showed gains in creative writing but only to the level of **SPRING I** pretests. Self-concept scores showed a maintenance of gains from **SPRING I**. There were decreases in other creativity and achievement measures. Science attitude and achievement also showed drops, and science process skills showed a nonsignificant increase. Those who had appeared to have benefitted least from **SPRING I** appeared to catch up with those who had benefitted most on both self-concept and measures of science process skills and science achievement.

Interpretations

The elementary school curriculum intervention appears to help students learn science problem-solving (process) skills, and long term gains in self-concept appear to occur from participation in **SPRING**. However, **SPRING** students do not appear to demonstrate any spread of interest, motivation, or achievement beyond the particular creative projects and special interests aroused by the combination of their own special skills and the **SPRING** curriculum interventions. The students were selected because they had unique talents which did not show up on standardized achievement tests. It is perhaps unrealistic to expect that a curriculum and approach which responds to their unique needs will get them to do well on measures which are not so oriented.

II. Qualitative Evaluation

Qualitative interviews were carried out by the Project evaluator at all three sites in 1995. A total of 78 persons were interviewed, including 41 classroom teachers, 6 gifted and talented teachers and/or coordinators, 2 school administrators, 22 students, and 7 parents (See Table 13). All but 3 of the teachers, 3 or the students, and a parent-child pair (all in New Mexico) were individually interviewed privately. The largest number of interviews was carried out in South Carolina (42), which also included the only school where we were able to individually interview a small number of parents (6) whose children were also individually interviewed. The largest number of student interviews (12) was carried out in Indiana, where the students were older (8th and 9th graders).

Interviews with administrators and coordinators were approximately 45 minutes, teachers about 30 minutes, parents 20 minutes, and students 15 minutes, though there was a considerable range within each of these categories, depending on the extent of relevant experience, interest, time available and verbal facility of the individuals. All interviews were informal but addressed a common set of topics: experiences and feelings related to the **SPRING** identification and instructional activities and plans for following up on these. For students, it also included occupational and educational aspirations. All were asked to describe the things they liked best and least about the program. With the exception of one group interview with two teachers in a busy teachers' lounge during their lunch break, all interviews were audio taped and transcribed, then analyzed for thematic content and summarized by the evaluator.

Table 13
Number of Interviews by State and Position

State	Admin.	GT/Coord.	Teachers	Students	Parents
Indiana	0	2	5	12	0
South Carolina	2	4	24	6	6
New Mexico	0	0	12	4	1
Total	2	6	14	22	7

A. Qualitative Findings - Indiana

Paoli - Positive Outcomes

School Corporation support. The school board has agreed to provide financial support to enable the programs introduced by **SPRING** to be continued.

Elementary Teacher commitment to discovery based science curriculum. The fifth and sixth-grade teachers continue to use the curriculum developed for **SPRING I** and will continue to do so.

SPRING student gains in self-confidence, aspirations. Middle school follow-up allowed observation of long term gains in self-confidence and leadership, including confidence in discussing topics related to the areas in which they knew they had special skills and knowledge. Teachers reported **SPRING** students' abilities to carry out scientific problem solving. Several students indicate high educational and vocational aspirations, particularly in environmentally related science areas, and report considerable parent support for this.

Summer College for Gifted. The most vivid experience related to **SPRING** for most students was their participation in the Indiana University Summer College for Gifted and Talented Youth, which gave them a concrete positive experience in college living with other talented students as well as the excitement of an intensive, high level, discovery oriented, academic experience.

Share Fair. This pre-Science Fair activity for 5th through 8th graders which is open to all, enabled many more students to participate than does the traditional Science Fair. The Share Fair involved students presenting their projects to all other students and to parents, who were enthused by this. Teachers and the GT Coordinator and Liaison both supported continuing this activity, though one teacher pointed out that it should be voluntary for **SPRING** as well as other students.

Parent-teacher conferences. These meetings emphasized orienting parents to high school, college, and career planning. Teachers and GT personnel also strongly supported continuing these conferences.

E-mail contact with university science education students. Those students who were able to participate were provided information on career and high school planning.

Field trips. These were tied in to the curriculum and were viewed very positively by participants.

Paoli - Limitations

Identification. Rather than identifying students before introducing the **SPRING** curriculum, student response to the curriculum will be employed to help identify students. Some teachers would prefer not to specially identify any students, but to teach all in a more individualized, hands-on way.

Junior high school curriculum, methods. Rather than attempting to change the curriculum in junior high school science, efforts will be to provide support and inservice to help teachers implement a more individualized approach to instruction. Although this is a natural approach for some teachers, others are more traditional in their approach. These teachers tend to see SPRING students as showing too little responsibility, as not working hard enough.

Improving computer aspects of program. More advanced planning needs to be done to improve implementation.

Crawford County - Positive Outcomes

Indiana University summer program effects. **SPRING** students who participated in the Indiana Universtiy summer program were enthusiastic about it. Those not participating have less clear images of what was distinctive about SPRING.

Other positive activities. Students enjoyed doing individual projects, reports, hands-on activities, labs, and field trips.

Crawford County - Limitations

Poor student motivation. Teachers found some of the **SPRING** students to be "lazy and unmotivated" in their classwork. Students reported disliking lectures, reading assignments, worksheets, and studying for tests. Some of the students were much more interested in sports than in any school work.

SPRING/GT confusion. Teachers often did not know which students were in **SPRING** since they were fully integrated into GT classes.

B. Qualitative Findings - South Carolina

Daisy Elementary School

The school is involved in multiple projects, including year-round school, holistic education (whole language)--thematic curriculum/integrated day, and alternative (portfolio) assessment. It has a half-time GT teacher, involved in the authentic assessment project as well as **SPRING**. The curriculum intervention for **SPRING**, e.g., the Water Curriculum, was tied in to the thematic/holistic approach. However, multiple interventions and programs made it difficult for teachers to know which students were **SPRING**

["Javits"] versus GT and which activities were specifically Javits-related.

Identification. The pioneer and story telling contests were seen by some teachers as alerting them to the potential in some students whom they had not thought of in that way earlier. Some individual, highly creative students identified were seen as increasing in self-confidence. The emphasis in identification (and intervention) inservice was on multiple intelligences.

Materials and equipment. These resources, including experimental books, slides, and microscopes, were seen as a great benefit to hands-on activities.

Field trips. These were seen as a great success because the school and families don't have enough resources to do it otherwise.

Hands-on approaches. Various hands-on approaches, frequently related to field trips and the Water Curriculum, were seen as successful.

Ellory Elementary School

GT and 3rd and 4th-grade teachers were very positive about the program.

Inservice. Inservice was stimulating to teachers, a hands-on experience where they learned how to use inexpensive materials, build science centers related to the Water Curriculum, and shared these with the other teachers.

Science centers/curriculum. These were used with all students and were very popular. Children loved going to the centers. The integrated Water Curriculum was very helpful to teachers.

Field trips. These gave novel experiences to all third and fourth graders. They learned a lot, were excited by it, and were motivated by it to do reports and drawings.

Identification. Positive experiences included the pioneer contest, in which the children impressed teachers with their creativity. The special procedures identified children who would not have otherwise been selected. It changed teachers' perceptions of some children.

Student self-esteem. Because of the association of this identification with the GT program, run by the same teacher, which had high status in the school, identified **SPRING** students were seen to improve their feelings about self. It was also seen to improve their motivation and performance in school.

Parents. Parents became involved from the beginning for a similar reason, association with the GT program. Some parents were surprised by the selection of their child. Parents generally reported that their children were happy to be in the program and were enthusiastic about the camcorder and the boat trip.

Camcorder. Students use of the video camcorder was seen as a wonderful learning experience. There was tremendous interest.

Materials, etc. Materials purchased by the project for the Water Curriculum were much appreciated, as was the released time for inservice.

Estill Elementary School

Overall, this school had a great deal of enthusiasm for the project, by administrators, **SPRING** coordinators, and teachers. There was a great deal of administrative support and very positive feelings about the contributions of the South Carolina project director.

Inservice. Teachers were very pleased and involved with the inservice, where they had a chance to get away from the students and engage in hands-on activities, developing their own materials and getting additional materials.

Children's involvement. Teachers reported that children loved the field trips, science materials, equipment, and centers, camcorder, pioneer contest, Internet, and the artifact box. Children's active interest and creative response increased teachers' expectancies overall.

Anti-labeling orientation. The school is anti-streaming and anti-labeling. They needed and greatly appreciated the resources from the project to provide opportunities for all children. The teachers were allowed to increase the number of identified students when they found others whom they felt qualified. Similarly, they extended the camcorder experience to nonidentified children rather than limiting it to **SPRING** students since they did not feel that was appropriate.

Water Curriculum. The Water Curriculum fit well with the integrated day/whole language curriculum approach they were moving toward.

C. Qualitative Findings, New Mexico

Major Differences in Attitude and Involvement Between Sites

Most of the teachers in Anthony were very unhappy with the project and were unwilling to participate in the last year of the project. The project was one more thing to do when they had moved to a new school with a new principal, and all the special resources they had in the old school remained there.

Common Unhappiness with Turnover and Perceived Disorganization of Project Director and Staff

Teachers in both schools were particularly upset with the wasted time spent by teachers in developing curriculum materials which were then not used. Some teachers were also upset with the identification process which took too long, too much of their time, and ultimately ignored their input.

General Satisfaction with Principles and Goals of SPRING and Specific Services Provided by Contact Person

Onsite support, demonstrating how to apply principles with students, providing curriculum materials were very much appreciated, when they were received. Teachers generally liked the ideas of expanding opportunities for their students, recognizing their special talents, and providing interesting hands-on activities for learning. Most of the services which were actually received were in Berino, once most of the Anthony (Loma Linda) teachers pulled out of **SPRING**, but even here there was a felt need for much more support.

Resources Provided Were Much Appreciated But Not Always Systematically Used

Field trips were highly relevant to the new curriculum, video cameras were often used for instructional purposes but not always used by the students (though they were trained to use it), inexpensive materials demonstrated by the contact (inservice support) person were greatly appreciated. Some of the teachers at Berino felt they could continue to implement the new approaches once the project person was no longer there to assist. Berino teachers felt they had administrative support to continue the hands-on approach. Others seemed to depend on the support person to actually do the hands-on teaching. Only minimal implementation of the computer communication system seems to have occurred.

D. Summary - Qualitative Findings

Identification Process

1. Approval of expanding definition and services for Gifted. Although teachers did not always know exactly how SPRING children were identified and did not always know which children were identified, they generally approved of the idea that there were more ways of being gifted than achieving well on standardized IQ and achievement tests.

2. Disapproval of labeling and separately serving gifted students. Some school administrators and teachers disliked the ideas of identifying and labeling children as gifted, though they approved of finding out in what ways any (or all) child(ren) were particularly talented and of designing teaching methods to take advantage of these diverse talents.

3. Teachers become sensitized as a result of the identification process. When teachers participated in or observed special identification tasks, such as the pioneer contest, they were impressed with the creativity and enthusiasm shown by so many children whom they viewed as unmotivated or untalented in school. Teachers who had been surprised by the identification of certain children were later able to find the special talents and, as a result, felt that their eyes had been opened so they would now look in more diverse ways for giftedness.

4. Many identified children were seen as disappointing by teachers. When asked about specific identified SPRING students, teachers often complained of their being unwilling to work. This included some who had shown promise in earlier phases of the project, e.g., **SPRING I**, or the previous year of **SPRING II**. Sometimes an earlier teacher still viewed the student as a success. This seem related to differences in teaching approach.

5. Other students who were disappointing in earlier phases were surprising to teachers in their "turn around." This included one student identified as least benefitting from **SPRING I** but now seen as benefitting most from **SPRING II**.

6. Visibility of SPRING/special status. Recognition by the **SPRING** students themselves and their families and teachers was most associated with distinctive opportunities provided the child: (a) participation in the Indiana University Summer College for Gifted and Talented; (b) in schools which put **SPRING** students into well established gifted classes; and/or (c) in being the only ones in their classes to be allowed to take a camcorder home.

One consequence of the self-identification, as well as these unique opportunities and satisfactions, was to improve student self-confidence in their special talents and to make certain future possibilities for education and vocation more salient, including attending college and working in environmentally oriented scientific professions.

Curriculum and Methods intervention

7. Fit with teachers' orientation. Acceptance by teachers of the proposed changes in how science and other subjects were taught seemed to depend on the extent to which these fit into either the existing orientation of the teachers or into changes they were otherwise being asked to make, e.g., whole language, integrated curriculum.

8. Other costs and benefits for teachers. Acceptance was also highly dependent on how much teachers were asked to make changes which cost them time, energy, and resources or, on the other hand, provided them with previously unavailable planning time and consultation, funds, and instructional materials and equipment.

9. Intrinsic satisfactions of curriculum and methods implementation. The resources and support offered them the possibility of making teaching and learning fun for themselves and their students. They were particularly responsive when they were able to see and experience hands-on, interesting learning activities themselves or being carried out with their students.

10. Need for support. The effectiveness of implementation of these changes with their own students required considerable support from project staff, administration (principal), GT coordinators, and/or fellow teachers.

Effects on Students

11. High level of student involvement. Teachers and students reported high levels of involvement in hands-on learning activities, including individual classroom learning centers, science labs, science projects, and field trips.

12. Problems in secondary schools. Long term effects of these interventions were hard to establish, because students are eventually faced with discontinuous learning experiences in secondary schools, which are less motivating relative to other interests of students. They were particularly turned off by direct instruction, testing, and homework, which they found boring.

III. Conclusions and Recommendations

A. Regarding the Major Objectives of SPRING II

SPRING II was largely concerned with assessing the generalizability of the **SPRING I** Indiana Project identification and intervention procedures for rural disadvantaged students. These concerns could be expressed as two questions:

1. Does a follow-up intervention with the same students in junior high school show the long term benefits of this approach?

2. Does the approach work when adapted to minority students in diverse rural environments?

The short answers to these questions are:

1. The follow-up demonstrated long term effects for the students, teachers, and schools that were most immersed in the project during both **SPRING I** and **II**, but the follow-up also showed the difficulties involved in maintaining this type of program and its effects at the secondary level; and

2. The application of the elementary level identification and intervention procedures to minority groups in South Carolina and New Mexico demonstrated the viability of this approach with diverse rural populations, but also showed problems similar to those experienced with some Indiana white rural disadvantaged students and settings.

Overall, then, the major benefit of the project has been the exploration and observation of the range of ways that we can be successful and the variety of problems we can experience in implementing alternative strategies for identifying and intervening with diverse talented rural disadvantaged students.

B. More Specific Conclusions of SPRING II Evaluation

1. When the **SPRING** identification strategy is effectively implemented in a supportive school environment, teachers become alert to the diversity of talents held by a number of students whom they had previously seen to be inadequate, uninspired, or untalented. Students who receive special attention as a result of this identification often feel better about themselves and are more interested in school, especially intrinsically interesting, hands-on activities. For some students, the consequence of identification is exposure to stimulating learning environments, which lead them to higher aspirations; for others, the consequence is placement in advanced courses, taught in more typical ways though at a more demanding level, for which they are not prepared. They may find themselves incapable of competing with more traditionally identified GT students, which leads them to lower their aspirations.

2. Most schools and teachers are more interested in the interventions and resources which can be given to all students, rather than a select few. New teaching materials and equipment, consultation and inservice on how to integrate curriculum around hands-on project activities, funds for field trips, computer modems, and video equipment are all seen as highly desirable when carefully introduced to personnel faced with few resources and great demands. Lack of recognition of school and teacher needs, however, can lead to low moral, teacher feeling of imposition--one more thing to do--and a failure to implement the program.

3. To have a long term impact on individual children, continuity of learning experiences are required. The children most excited about **SPRING** are those who were able to return to the summer College for Gifted and Talented Students three or four times over the length of the project. The most depressed are those who were initially enthused about what learning could be like and then faced uninsprired or overdemanding test-oriented instruction at the secondary school level.

4. Although long term impact on students may be difficult to determine, the long term impact on schools and teachers can be demonstrated in at least one school system which has institutionalized its curricular changes after having had external support from **SPRING** for six years. The response of other elementary schools studies in **SPRING II** suggests that most of these schools and their teachers will continue in the future to use at least some of the approaches initiated by **SPRING**.

Recommendations

1. Because of the high motivation and apparent learning demonstrated by students who participated in the Indiana University College for Gifted and Talented Students, it would seem appropriate to encourage other universities which serve students from rural areas to develop similar summer programs and provide scholarships for low income children to attend these. The universities would also benefit by using these programs as a recruiting tool for promising students who might otherwise not think of attending university at all.

2. The very positive response of most students from these schools to educational field trips and the motivation it provides schools, teachers, and students to follow up with motivating learning activities which are relevant to the community and schools suggests that such field trips be supported by State level educational, cultural, and environmental agencies for rural school districts which have limited accessability and cannot otherwise afford them.

3. The positive response to effectively instituted computer based communication interventions, combined with the difficulty in implementing these programs, suggest that state school systems and telecommunications organizations work together to facilitate the technical capability of rural schools to participate in such programs. The major needs appear to be for enough telephone lines and modems, as well as computers, for every student and teacher to have access on a regular basis.

4. Although there were specific instances where the already existing experience in the local environment and culture provided the motivation and skills which could be drawn upon to stimulate interest and learning in a revised school curriculum, generally the motivation and skills did not appear to be specific to the particular culture, geographic region, or local environment. However, in all these settings, critical factors in implementing programs and motivating students seem to be local and a more general commitment by schools and teachers to hands-on methods, thematically integrated curriculum, and responsiveness to varied student approaches to learning. Since there are many schools and teachers interested in these approaches, the major problem appears to be to identify these and to provide the financial, time, training and personnel resources necessary to implement them effectively.

5. Since the effectiveness of the interventions relied heavily on the extent and type of existing GT programs and personnel, it is particularly important that these persons be committed to the alternative identification and curriculum approach. Other teachers do not have the time to develop and monitor the changes on their own. Furthermore, where GT personnel have other agendas, the goals of the interventions are likely to be subverted to simply increase the number of children in GT programs by substituting local or subgroup norms on standardized measures for the state or national norms and by providing more typical GT interventions, which just set higher standards.

6. Since many of the **SPRING** students who had negative attitudes towards school before elementary school level interventions reverted when faced with the greater demands and more traditional curriculum at the secondary level, it is important to develop ways to build in continuity between elementary and secondary programs. The structure of secondary schooling and the emphasis on preparing students to do well on achievement tests in content areas make it difficult for teachers to be as flexible as they are in elementary school, despite training and orientation regarding individualizing and emphasizing problem-solving processes.

7. While it is understandable that **SPRING** students did not do better on many of the standardized measures after the intervention (given the limited length of the intervention and the orientation of the hands-on methods and curriculum employed), this approach might work much more effectively in a school system that bases its program and evaluation at all levels on a portfolio approach. The alternative is to develop strategies to motivate students to master the more traditional methods of instruction and assessment they will face in secondary school.

SUPPORTING MATERIALS

The following products developed by Project SPRING II are included as part of this Final Report.

Manuals:

Product 1	SPRING II: Identifying Rural Disadvantaged and Ethnically Diverse Gifted Students
Product 2	SPRING II: Science Curriculum Modifications for Rural Disadvantaged and Ethnically Diverse Gifted Students

Videotape:

Product 3	Project SPRING II: Overview

APPENDIX A

INTERNET

WORKSHOP EVALUATION

NOVEMBER 2, 1993

1. How was this workshop relevant to your needs?

Parent Responses (2)

a. To be able to communicate with other areas on relevant data.
b. Very relevant - didn't know anything about it prior to workshop.

Principal/Administrative Responses (6)

a. Internet is new to me. It will assist me as Building Principal in being instructional leader in "Tech."
b. My students must be able to access Internet.
c. Provided basic introduction to Internet.
d. I feel the workshop was helpful. We need more training on basic computer terminology.
e. Probably.
f. I was happy to figure out how to get into Internet and Gopher.

Student Responses (10)

a. It was great. I learned a lot.
b. I feel as though the material will be beneficial to me in the future.
c. It would help me on how to do more things on computers.
d. Fun.
e. It helped me on how to use the computer more.
f. It taught me more about computer programs.
g. It helped me learn how to use a computer!!
h. It helped me understand the use of Internet.
i. No response (2).

Teacher Responses (12)

a. Bring back information for my school which needs it for SPRING.
b. Introduction to Internet Telenet.
c. An insightful introduction to Internet. Saved me 4-5 hours of exploration.
d. More knowledge about computers. How to access Ideanet, Internet and Telenet.
e. School has access to computers and the networks.
f. Our school has access and hopefully it will use as an introduction.
g. We plan to use with our students not here information on how to.
h. Worthwhile.

i. Very good.
j. Yes, it was.
k. My school wants us to be computer literate.
l. Need Internet for research for students.

2. As a result of this workshop, what information presented will be most useful to you and why?

Parent Responses (2)

a. How to access information from a larger area, as we have no access to a major library facility - not even I.U.
b. Information on use and knowledge of Internet.

Principal/Administrative Responses (6)

a. Access to Internet.
b. How to access, retrieve, communicate, etc.
c. Gave enough knowledge to begin working with Internet.
d. How Internet is accessed and used.
e. Login information.
f. Figured out how to get into Internet and Gopher.

Student Responses (10)

a. How to get in different things.
b. Communication.
c. How to use the computer because it will help me in life.
d. How to use Internet.
e. How to use the Gopher program because I may have to use it in the future.
f. Getting into Internet as a basic idea.
g. No response (4).

Teacher Responses (12)

a. All.
b. Ability to access, hopefully.
c. General.
d. Accessing Ideanet and Internet.
e. How to very basically get through some of the information available and programs.
f. Gave me a better appreciation for program (Education Computers) and gave me a better picture of the overall educational approach using computers.
g. Better understanding of Ideanet.
h. All of it.
i. I know a little more about getting into a computer.
j. Need to become more familiar with Gopher, but this seems like what I need.
k. No response (2).

3. Please describe briefly the workshop leader's effectiveness in: communicating with participants, organization of presentation, addressing the participants' needs and questions, and adapting materials and concepts with participants.

Parent Responses (2)

- a. Mr. Huffman is indeed the guru of Ideanet and knows his stuff; would that there was more time to learn how to move around.
- b. Considering the time allowed, he gave a very good block of instruction.

Principal/Administrative Responses (6)

- a. Good communications - hands on good!
- b. Very knowledgeable, patient, invaluable!
- c. Mr. Huffman was very knowledgeable about Internet, set-up of class and number of participants made instruction more difficult.
- d. Great - very knowledgeable - good communication techniques.
- e. Very knowledgeable - need more access to him - so that he can individualize.
- f. No response (1).

Student Responses (10)

- a. He was a great teacher.
- b. Other than the fact that he was hard to hear, he did a great job.
- c. Nice.
- d. Good, I think he is a good teacher.
- e. I thought he was very good at answering questions.
- f. He was very good at explaining.
- g. No response (4).

Teacher Responses (12)

- a. Patient - full of information.
- b. Tried, but class was too large.
- c. Mike is a good communicator.
- d. Excellent.
- e. Excellent, only over my head as a beginner.
- f. Very good, but without any experience - hard to understand.
- g. Could have used more time - great desire to help but couldn't.
- h. Effective.
- i. Good.
- j. Good presentation. Non-stressful - Thanks. Don't need Type A personalities to teach beginning computer!
- k. Patient, informative.
- l. No response (1).

4. In what ways could this presentation be improved?

Parent Responses (2)

- a. Teach us how to change our own passwords, how to download and print at a later time.

b. Time expanded.

Principal/Administrative Responses (6)

a. Well done.
b. Just continue to train us.
c. This was good as introduction. Looking forward to work at Throop.
d. Cover less in one day and more time to experience (I'm a hands-on learner - so it does help to do it!).
e. All day - more samples of things and ways to use information - I never really saw much - more time to practice.
f. Pace too slow. Less people. Actuall access and print out of educational materials.

Student Responses (10)

a. It could be improved by explaining about the system more.
b. The presentation could have been better if each person has his/her own computer.
c. More computers.
d. Smaller group.
e. Could be explained more.
f. It needs to take less time to call up the program.
g. None.
h. No response (3).

Teacher Responses (12)

a. Smaller groups.
b. Reduce class size.
c. Smaller groups.
d. Smaller groups.
e. Smaller groups.
f. Smaller groups. Having same screen information as ours will be.
g. More time.
h. Things would have been better with fewer people.
i. Would smaller groups and starting and ending on time impart more knowledge?
j. Smaller groups.
k. No response (2).

APPENDIX B

CASE STUDIES OF SPRING STUDENTS VIEWED AS BENEFITTING MOST AND LEAST FROM THIS PROJECT

Indiana

#IN-1

Benefit Least

CHILD DATA

Piers Harris Children's Self-Concept

Item Analysis	Pre (%) 11/92	Post (%)10/95
Behavior Cluster I	81	65
Intellectual and School Status I	98	60
Physical Appearance & Attributes	36	60
Anxiety IV	90	81
Popularity V	38	38
Happiness and Satisfaction	72	72
Total Score	79	66

Science Attitude:

Item Analysis	Pre (%) 2/94	Post (%) 10/95
Read/Talk	53	67
Investigate	68	73
TV/Films	80	80
Comfort/Discomfort	57	87
Learning Content	55	75

ISTEP Science:

Item Analysis	Pre (3/93)	Post (%) 3/95
Select/Use Tools Observe	N/A	100
Use/Classify System for Sorting		100
Select Valid Science Inform Source		50
Identify/Use Cause-Effect		75
Identify Person/Event in Science		100
Interpret Science Information		75

CSI:

3/93	3/95
107	107

Torrance Streamlined:

Date	Fl	Or	Fl	Fx	Or	El
11/92	14	7	10	8	9	43
10/95	25	8	7	6	9	47

Final Grades:

Date	Math	Science	Social Studies	English
1993	F	C	D	C
1995	F	C	F	D

Writing Sample:

Date	Fl[1]	Fx	Or	El	El	Total
11/92	3	2	3	3	2	13
10/95	2	2	3	2	3	12

1- Each category has a maximum value of three points for a total of 15 points possible.

5/95 "The Lion That Doesn't Roar"

I was walking through the woods one day in africia and I heard lions roar and then I saw a lion theat looked depressed and I looked at him and he did not roar and then I got closer and I was wandering why he was not roaring and then I hear some one say something and It was the lion It shocked me greatly and he said whats the matter havent you ever saw a talking lion. Why can you talk. He said well its eather roar or talk. I said you cant roar. He said No I won't roar and he said get away from me Before I bite you so I left and did not tell anyone.

STUDENT OBSERVATIONS

In fifth grade, #IN-1's Aunt described him as someone who "likes to keep busy, doesn't like idle time. He likes to find out why things don't work and asks lots of questions." She hopes #IN-1 will "go to college, get a good education, get a better job and have a better future." At that time, #IN-1 agreed and detailed his plans to go to college to be an engineer or a scientist. Currently, #IN-1 is struggling in high school with grades of C's and D's.

TEACHER OBSERVATIONS

#IN-1's fifth grade teacher reported that "he leaps ahead on discussion questions--not

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only knowing the answer, but following it up with what would have been a second question of more depth." On the other hand, the teacher reports that while #IN-1's ideas are there, he is very sloppy with his work. "In his latest project, #IN-1 drove his partner wild. She finally relegated him to something he wouldn't mess up."

His seventh science teacher explains, "#IN-1 just didn't do it for whatever reason. He dropped out of the science fair and did not complete his project. His verbal skills are better than most, but he doesn't turn in all his work and tends to be a passive participant in classroom activities. He does often have intelligent questions about subject matter during class and an above average understanding of the physical world concerning plants and animal science."

PARENT INFORMATION

#IN-1 is an only child who lives with his chronically ill mother. His dad lives nearby so he can see him regularly. His grandfather was a commercial fisherman, his father works for an electric company and his mom stays home. #IN-1 explains, "She has asthma so she can't work cuz she gets sick whenever she works."

#IN-2

Benefit Least

CHILD DATA

Piers Harris Children's Self-Concept

Item Analysis	Pre (%) 11/92	Post (%) 10/95
Behavior Cluster I	81	95
Intellectual and School Status I	90	81
Physical Appearance	60	91
Anxiety I	97	97
Popularity V	52	97
Happiness and Satisfaction	90	90
Total Score	1993	98

Science Attitude:

Item Analysis	Pre (%) 2/94	Post (%) 10/95
Read/Talk	67	60
Investigate	70	75
TV/Films	80	100
Comfort/Discomfort	53	60
Learning Content	60	65

ISTEP Science:

Item Analysis	Pre (%) 3/93	Post (%) 3/95
Select/Use Tools Observe	100	100
Use/Classify System for Sorting	100	75
Select Valid Science	100	100
Identify/Use Cause-Effect	100	100
Identify Person/Event in Science	75	100
Interpret Science Information	100	50

CSI:

3/1993	3/95
110	115

Torrance Streamlined:

Date	Fl	Or	Fl	Fx	Or	El
11/92	14	11	8	8	6	42
10/95	15	0	10	9	3	23

Final Grades:

Date	Math	Science	Social Studies	English
1993	(P.Alg.)D	C	D	D
1995	F	B	F	C

Writing Sample:

Date	Fl[1]	Fx	Or	El	El	Total
11/92	1	1	1	1	1	5
10/95	1	1	0	1	0	3

1- Each category has a maximum value of three points for a total of 15 points possible.

5/95 "The Lion That Doesn't Roar"

The lion did'nt roar becaus he had a soar throught and was out of cloraseptic!

STUDENT OBSERVATIONS

As a fourth grader #IN-2 drew comic strips anytime he could and was eager to share his complex storylines. His goal was to "be a commercial artist." In fifth grade he "didn't know what a modem did until Project Spring. Now I really like computers, using a modem to play games. Sometimes I write games, me and my friend do." #IN-2 was a dynamic student who actively pursued learning opportunities.

As a high school freshman, #IN-2's interest in just about everything seemed to be limited when compared to his intensity as an elementary student. His disinterest can even be found in his art. "I'd like to take G/T art but I can't get into it. I think I'm a fairly good artist." But when asked if he could make arrangements to take G/T art, he replied, "Well, I don't know that I really want to take it anyway. I don't know why I didn't get in."

In reflecting on elementary school, #IN-2 concludes, "I used to worry about everything when I was little, but I've given that up now. You could say I was a paranoid kid. Now, I just sleep. " When considering future plans, again #IN-2 lacks the direction he formerly conveyed, "As many times as people ask me what I want to do after high school, you'd think I'd have an answer. I really don't know. I just haven't thought about it. My parents say I'm gonna move out after high school."

Still, #IN-2 admits his room is "just a big pile of all the art I've done since kindergarten. And, I like mechanical things. We have a go-cart that I put together and fix a lot." From his comments, it appears school has either been "at the third grade level" or "six feet over my head...I didn't understand it and the teacher didn't let you ask questions."

TEACHER OBSERVATIONS

In elementary school, #IN-2 was described by his teachers as "very talented, quiet, restrained with a dry wit. He has a smile that makes you wish you knew what he was thinking." #IN-2 did have a difficult time relating to peers and was often not a great favorite with the teachers.

In eighth grade, #IN-2's science teacher says he asks, "intelligent questions about subject matter during class; but, he lacks effort in doing his best job, dropped out of the science fair, and misses a considerable amount of school."

#IN-3

Benefit Most

CHILD DATA

Piers Harris Children's Self-Concept

Item Analysis	**Pre (%) 11/92**	**Post (%) 10/95**
Behavior Cluster I	32	95
Intellectual and School Status I	38	70
Physical Appearance	5	25
Anxiety IV	26	97
Popularity V	20	69
Happiness and Satisfaction	1	72
Total Score	21	82

Science Attitude:

Item Analysis	**Pre (%) 2/94**	**Post (%) 10/95**
Read/Talk	73	53
Investigate	63	40
TV/Films	80	70
Comfort/Discomfort	77	43
Learning Content	65	40

ISTEP Science:

Item Analysis	Pre (%) 3/93	Post (%) 3/95
Select/Use Tools Observe	75	100
Use/Classify System for Sorting	100	50
Select Valid Science Inform	75	75
Identify/Use Cause-Effect	75	75
Identify Person/Event in Science	50	100
Interpret Science Information	75	100

CSI:

3/1993	3/95
121	106

Torrance Streamlined:

Date	Fl	Or	Fl	Fx	Or	El
11/92	7	3	11	10	3	32
10/95	4	0	14	10	5	40

Final Grades:

Date	Math	Science	Social Studies	English
1993	(P.Alg.) B	B	B	B
1995	(Alg.I) D	D	B	B

Writing Sample:

Date	Fl[1]	Fx	Or	El	El	Total
11/92	1	1	2	2	2	8
10/95	2	2	3	2	3	12

1- Each category has a maximum value of three points for a total of 15 points possible.

5/95 "The Lion That Doesn't Roar"

There once was a lion who couldn't Roar, he was a friendly lion too. He didn't have many friends because everyone was afraid of him. He would try to go up and make friend, but people ran away. Everyone but this one little girl. She had always had a fantisy to meet a lion and to run away and live with it. So one day when she was out picking berries the lion appeared out behind some bushes. The girl was amazed. She asked the lion if she could come live with him. He agreed. So off they went to the lions home, never to be Heard from again. (although they did live happily ever after).

STUDENT OBSERVATIONS

#IN-3's future goal as a 6th grader was to be a pharmacist. Now finishing his ninth grade year, #IN-3 is making plans to go to college and has applied for a 20th Century Scholarship. He now wants to be a secondary education teacher in either science or history. "I started off in elementary school I wanted to be a teacher and through junior high I was kind of confused, you know, I wanted to be several different things, but now I'm kind of back on wanting to be a teacher."

In his senior year, #IN-3 plans on taking two science classes to keep up with science. "I'm gonna really have to work hard to get and maintain good grades, you know, and just get a grasp and keep it with me, you know, because if I don't then I'm gonna get into college and not have an idea what I'm doing."

TEACHER OBSERVATIONS

During his seventh grade year, #IN-3's science teacher wrote, "By the end of the year he had gone from the bottom of the class to the middle. He was a much more active participant in class discussion. His work improved in clarity and thought."

During his eighth grade year, #IN-3's science teacher noted he was very shy and reserved at first, but if you got him talking about cows...my goodness you never heard anybody talk so much in your life...he knows which type of cows are good for milking, which type are good for breeding, these type of cows are good to raise for beef and you know how you cross them and what you end up with and why they're good for this, the color, what they looked like."

#IN-3's ninth grade biology teacher believes he is one of the students who benefited from the SPRING program. "That extra recognition that surely being special in some way and having people other than teachers or even peers realize that they had some talent, and I think in a lot of ways makes them feel special and also gives them expectations. We know you're talented, now we want to see you prove, and #IN-3 was one of those."

HONORS

21st Century Scholar

#IN-4

Benefit Most

CHILD DATA

Piers Harris Children's Self-Concept:

Item Analysis	Pre (%) 11/92	Post (%) 10/95
Behavior Cluster I	95	95
Intellectual and School Status I	60	90
Physical Appearance	84	84
Anxiety IV	37	48
Popularity V	38	52
Happiness and Satisfaction	72	56
Total Score	79	96

Science Attitude:

Item Analysis	Pre (%) 2/94	Post (%) 10/95
Read/Talk	53	80
Investigate	70	68
TV/Films	70	50
Comfort/Discomfort	77	87
Learning Content	60	75

ISTEP Science:

Item Analysis	Pre (%) 3/93	Post (%) 3/95
Select/Use Tools Observe	75	100
Use/Classify System for Sorting	100	75
Select Valid Science	75	100
Identify/Use Cause-Effect	100	100
Identify Person/Event in Science	25	100
Interpret Science Information	75	100

CSI:

3/1993	3/95
120	125

Torrance Streamlined:

Date	Fl	Or	Fl	Fx	Or	El
11/92	14	10	14	13	8	39
10/95	7	1	13	13	8	33

Final Grades:

Date	Math	Science	Social Studies	English
1993	(P.Alg.) B	B	B	B
1995	(Alg I) C	B	A	B

Writing Sample:

Date	Fl[1]	Fx	Or	El	El	Total
11/92	2	2	1	2	1	8
10/95	2	2	3	2	1	10

1- Each category has a maximum value of three points for a total of 15 points possible.

5/95 "The Lion That Doesn't Roar"

Once there was a lion that couldn't roar. Everday he would walk through the forest and look at everything. There was always a animal ask "How can you be the king of the forest if you can't roar?" He would always lower his head and walk away. One day an elephant asked him that and the lion challenged him to a race. The winner was the lion. Next day a mouse asked him. The lion challenged him to a eating conetest. The lion won. One day a leopard asked him and the lion challenged him to a zebra-catching contest. The lion won. Then one day another lion asked him. But before the lion could answer the other lion, challenged him to a roaring contest. He was very nervous and tried with all his heart to roar, so he wouldn't lose and he roared so loud that all the animals was scared and ran off. The theme is "anything you put your heart to you can accomplish it."

STUDENT OBSERVATIONS

#IN-4 is a regular contributor to her schools' newspaper, The *Patoka Pride* and recently wrote and performed a play about Christopher Columbus. #IN-4 "likes being outside" and plans to go to college, "lately I'm been thinking about like being a surveyor or something, so then I could be outside because I really like to be outside so I think it would be kind of fun to do something like that. I've been thinking about Vincennes University in Vincennes."

TEACHER OBSERVATIONS

#IN-4's science teacher for seventh and eighth grade said she really struggled in seventh grade but then was "a very good student" in eighth grade. "She didn't talk much...she was very shy at first, I thought my she's not gonna, you know all the others in there are just going and she was really quiet and then eventually she got more familiar with the class and she would talk and she would raise her hand and volunteer information and she did real well on the presentation that she did and real well in the Science fair...placed second. I've talked with #IN-4 several times and she is very pleased with her progress."

#IN-4's ninth grade science teacher found "she never wanted to ask or answer questions in front of the class but she would catch me later and ask about what she didn't understand."

HONORS

Honor Roll: 1993, 1994, 1995

#IN-5

Benefit Most

CHILD DATA

Piers Harris Children's Self-Concept:

Item Analysis	**Pre (%) 11/92**	**Post (%) 10/95**
Behavior Cluster I	95	81
Intellectual and School Status I	90	49
Physical Appearance	91	30
Anxiety IV	97	90
Popularity V	86	69
Happiness and Satisfaction	90	90
Total Score	99	1993

Science Attitude:

Item Analysis	**Pre (%) 2/94**	**Post (%) 10/95**
Read/Talk	73	67
Investigate	65	58
TV/Films	90	80
Comfort/Discomfort	57	50
Learning Content	65	60

ISTEP Science:

Item Analysis	Pre (%) 3/93	Post (3/95)
Select/Use Tools Observe	50	N/A
Use/Classify System for Sorting	75	
Select Valid Science Inform	75	
Identify/Use Cause-Effect	50	
Identify Person/Event in Science	50	
Interpret Science Information	75	

CSI:

3/1993	3/95
91	97

Torrance Streamlined:

Date	Fl	Or	Fl	Fx	Or	El
11/92	13	9	9	9	5	48
10/95	N/A					

Final Grades:

Date	Math	Science	Social Studies	English
1993	C	B	C	B
1995	D	C	B	B

Writing Sample:

Date	Fl[1]	Fx	Or	El	El	Total
11/92	1	1	1	1	1	5
10/95	N/A					

1- Each category has a maximum value of three points for a total of 15 points possible.

5/95 "The Lion That Doesn't Roar"

N/A

STUDENT OBSERVATIONS

From fourth grade on, #IN-5 has persisted in his dream to play professional basketball. As a ninth grader now, he is a starter on the freshman basketball team and he practices with the junior varsity team. If #IN-5 doesn't make it as an NBA player, he plans to go to college and pursue a career as a basketball coach. "Play basketball, that's what I want to do."

#IN-5 finds he "likes high school...but all we do is work. I don't really have a favorite subject. Biology is hard, I know it's hard. If I understood it, it would be fun, but I don't. I did like my science fair project on roads and how they change over a period of time, stuff like that. I am also into the outdoors. I might be a game warden or something like that."

TEACHER OBSERVATIONS

#IN-5's seventh and eighth grade science teacher found "he seemed kind of special in a way...there was just something about #IN-5 when we went out and did leaf collections or anything he seemed to always have good knowledge of the forest. He could tell you about the trees, you know basically the barks and the leaves and the characteristics that the other kids didn't know...and I thought that was pretty amazing and I don't know where he picked all that up. He impressed me with some added knowledge that you normally don't see. Now #IN-5 could be lazy, he can get lazy on you, you know if you just kept #IN-5 motivated he can do anything for you."

#IN-6

Benefit Most

CHILD DATA

Piers Harris Children's Self-Concept:

Item Analysis	Pre (%) 11/92	Post (%) 10/95
Behavior Cluster I	95	81
Intellectual and School Status I	98	70
Physical Appearance & Attributes	84	84
Anxiety IV	97	26
Popularity V	86	69
Happiness and Satisfaction	90	9
Total Score	96	66

Science Attitude:

Item Analysis	Pre (%) 2/94	Post (%) 10/95
Read/Talk	67	47
Investigate	90	78
TV/Films	50	60
Comfort/Discomfort	80	70
Learning Content	65	80

ISTEP Science:

Item Analysis	Pre (%) 3/93	Post (%) 3/95
Select/Use Tools Observe	75	100
Use/Classify System for Sorting	100	75
Select Valid Science Inform	75	100

Identify/Use Cause-Effect	75	100
Identify Person/Event in Science	25	100
Interpret Science Information	100	75

CSI:

3/1993	3/95
109	113

Torrance Streamlined:

Date	Fl	Or	Fl	Fx	Or	El
11/92	21	13	13	12	11	38
10/95	15	0	14	10	6	53

Final Grades:

Date	Math	Science	Social Studies	English
1993	(Pre. Alg) B	B	C	D
1995	(Alg. I) D	B	B	C

Writing Sample:

Date	Fl[1]	Fx	Or	El	El	Total
11/92	2	1	2	1	1	7
10/95	2	3	3	3	3	14

1- Each category has a maximum value of three points for a total of 15 points possible.

5/95 **"The Lion Doesn't Roar"**

One day in a very far away land there was a lion. He had always been very mean to everyone. Then one day a good fairy came down and said you mean lion why do you like to scare little kids, and everyone else? Do you think its neat? Well, it's not. If you don't change your dirty ways, I am going to make it to where you can't be mean to anyone else. So he continued doing his bad deeds. So the good fairy came back down and said lion you have disobeyed me. So I shall have to take away your teeth. He said but how will I eat. She said I will give you food to live by. All I ask is that you don't do it again. If you do it I will take something else away from you. So she caught him a day or two later roaring and growling at little kids. So she took away his roar and his ability to talk, she also took away his legs. From that day on he has been a very good lion. But now he can't roar, talk, walk, or chew. So, if you aren't good the good fairy may come down and do the same to you!

STUDENT OBSERVATIONS

When asked about her future aspirations #IN-6, then a fourth grader, eagerly responded, "Go to college and learn how to be an astronaut." Later that same year, #IN-6 was still entertaining visions of being an astronaut, but had added the goal of becoming a model. She dreamed that "someone very nice will come along and say #IN-6, you're beautiful, why don't you be a model." She doubted she would ever be an astronaut or a model, though, resigning herself to work at the local McDonalds because the rest of her family "is that way."

In fifth grade, following a Project Spring field trip to Norton's Hospital, #IN-6 reconsidered her aspirations and settled on a career as a brain surgeon. She wanted something different. "Not like people here who work in factories...they just go to work, go home. I don't see how their lives are satisfying."

Evidence of a growing confidence in pursuing her interests can be seen in a letter to Project Spring requesting financial support for a school-sponsored trip to Chicago during the seventh grade. In eighth grade, #IN-6 excelled in biology, made plans to take advanced biology and complete an honors diploma; and, her science fair project on the cleaning effectiveness of several brand name detergents placed second. #IN-6 has applied for the Twentieth Century Scholarship Program and developed an avid interest in the performing arts, particularly voice. She now regularly sings in local productions and church functions and recently placed 4th in a county fair voice contest. Her current college plans are either "neurosurgery or opera."

#IN-6 has attended the IU College for Gifted and Talented for the past four years and has "really enjoyed Project Spring." After participating in the courtroom simulation the summer of 95, #IN-6 "had never realized all of that was necessary, the court hearing and everything. I just thought it was a bunch of mumbo jumbo. I didn't really understand it, but now I learned a lot...I'd like to do the summer college all summer instead of just two weeks."

TEACHER OBSERVATIONS

The g/t coordinator described #IN-6, then in elementary school, as a very sociable child. "She does everything." #IN-6's sixth-grade teacher reported she was a hard worker and did very well.

In eighth grade, #IN-6's science teacher describes her as needing reassurance but also "beginning to study and ask questions." She further recalls, "The kids were flabbergasted after they heard her science fair presentation on what she had done."

Diane Wilson, the Gifted and Talented coordinator, has been a constant source of support for #IN-6. At the beginning of her eighth grade year, #IN-6 was faced with the dilemma of choosing between choir and GT English. Ms. Wilson offered to pay for and provide voice lessons for #IN-6 every Thursday afternoon. This agreement allows #IN-6 to pursue both GT English and her passion for singing.

HONORS

21st Century Scholar
Honor Roll, 1993 & 1994
Science Fair, second place, 1995

#IN-7

Benefit Most

CHILD DATA

Piers Harris Children's Self-Concept:

Item Analysis	**Pre (%) 11/92**	**Post (%) 10/95**
Behavior Cluster I	81	65
Intellectual and School Status I	60	49
Physical Appearance	73	60
Anxiety IV	90	18
Popularity V	69	52
Happiness and Satisfaction	90	72
Total Score	94	69

Science Attitude:

Item Analysis	**Pre (%) 2/94**	**Post (%) 10/95**
Read/Talk	60	53
Investigate	85	75
TV/Films	70	50
Comfort/Discomfort	73	70
Learning Content	85	70

ISTEP Science:

Item Analysis	Pre (%) 3/93	Post (%) 3/95
Select/Use Tools Observe	N/A	50
Use/Classify System for Sorting		75
Select Valid Science Inform		75
Identify/Use Cause-Effect		50
Identify Person/Event in Science		50
Interpret Science Information		100

CSI:

3/93	3/95
112	111

Torrance Streamlined:

Date	Fl	Or	Fl	Fx	Or	El
11/92	20	7	14	12	8	36
10/95	7	0	14	11	1	29

Final Grades:

Date	Math	Science	Social Studies	English
1993	B	B	B	A-
1995	B	B	B	B

Writing Sample:

Date	Fl[1]	Fx	Or	El	El	Total
11/92	2	2	3	1	2	10
10/95	2	2	2	2	3	11

1- Each category has a maximum value of three points for a total of 15 points possible.

5/95 "The Lion That Doesn't Roar"

Back in a far away jungle lives a lonely, cold hearted lion that doesn't roar. They call him no heart because he is so sad because he has never roared before. Some say he has never tried, and others say he just can't.

One day he was sleeping and he had a dream. He dreamed that he could roar, the only reason he did was because he tried really really hard. He suddenly woke up and tried really really hard to roar. When he did, he roared the loudest roar anybody could ever hear. From that day on he had the loudest roar ever. The End!

STUDENT OBSERVATIONS

#IN-7 readily admits that when she "was little I didn't care about school, now I try much harder and care about school." She "definitely plans to go to college...I'm thinking about psychology but I really don't know." Her favorite subjects are Algebra I and history. "I like Algebra I because it is easy and I like history because I am just interested in it."

TEACHER OBSERVATIONS

#IN-7's ninth grade science teacher describes her as a "good listener in class, but doesn't ask if not understanding. She rarely speaks up and her study skills are lacking. She seems to get along well with peers in class, has good communication skills and leadership ability."

HONORS

Honor Roll: 1995

#IN-8

Benefit Most

CHILD DATA

Piers Harris Children's Self-Concept:

Item Analysis	**Pre (%) 11/92**	**Post (%) 10/95**
Behavior Cluster I	65	1
Intellectual and School Status I	90	38
Physical Appearance	73	36
Anxiety IV	58	11
Popularity V	69	69
Happiness and Satisfaction	90	4
Total Score	87	24

Science Attitude:

Item Analysis	**Pre (%) 2/94**	**Post (%) 10/95**
Read/Talk	87	67
Investigate	90	85
TV/Films	90	100
Comfort/Discomfort	80	67
Learning Content	75	80

ISTEP Science:

Item Analysis	Pre (%) 3/93	Post (%) 3/95
Select/Use Tools Observe	75	100
Use/Classify System for Sorting	100	75
Select Valid Science	75	50
Identify/Use Cause-Effect	75	100
Identify Person/Event in Science	100	75
Interpret Science Information	100	75

CSI:

3/93	3/95
112	107

Torrance Streamlined:

Date	Fl	Or	Fl	Fx	Or	El
11/92	20	11	15	11	8	32
10/95	22	2	12	9	3	35

Final Grades:

Date	Math	Science	Social Studies	English
1993	(P.Alg.) B	B	B	B
1995	(Alg. 1) C	C	B	B

Writing Sample:

Date	Fl[1]	Fx	Or	El	El	Total
11/92	1	1	1	2	1	6
10/95	2	2	2	2	1	9

1- Each category has a maximum value of three points for a total of 15 points possible.

5/95 "The Lion That Doesn't Roar"

Once long ago in a faraway village there lived a little baby lion named kitty.

Everyone said he was a baby. So kitty decide to leave the village. He thought maybe if he could do a brave act the other lions would not make fun of him. So finally kitty had walked out of his villige and into a territory he had never seen it was the Tigers land. The tigers did not want kitty there so they chased him home the whole time kitty to roar at them. When he got home every one had found out what happened to him. They made fun of him more than ever. Until one day the Tigers decided to take their land and ending up they killed King Tyron (lion). A great many year pasted and the lions decided to take their land back. Along the way kitty was growing up. Kitty decided to finally to show his brave deed. So kitty ran them out of the land. Kitty became ruler and they called kitty the roarer.

STUDENT OBSERVATIONS

#IN-8 is currently working on her Honors Diploma, has applied to be a Twenty-first Century Scholar and is making plans to go to college. "I don't make great grades and everything, but I do know that I am like smart in certain things. I would like to take philosophy, sociology...all kinds of stuff in college. I mean those are things in high school that you don't learn about unless...My mom is going to ISU and she took a class of sociology and she absolutely loved it and she came home and I got to where I really like it."

#IN-8 has an avid interest in sports, participating in both track and volleyball. "I love to coach. I'm gonna see if I can manage for the eighth grade basketball team." She also really likes working with the computers Project Spring provided. "The internet they've got last year, I was using it, I wasn't talking to nobody, but I was getting into like when the Olympics were going on. I think we got a hold of Barcelona and found out what was going on and everything and we got in China and asked questions about the wall and everything and got to ask them certain things about it."

TEACHER OBSERVATIONS

#IN-8 is one of the students identified by teachers as having benefited from Spring. "When I went by her science fair project in the gym, it really impressed me as being enthusiastic about it and being able to verbally explain many aspects of her project."

HONORS

Honor Roll: 1993, 1994
21st Century Scholar

#IN-9

Benefit Most

CHILD DATA

Piers Harris Children's Self-Concept

Item Analysis	**Pre (%) 11/92**	**Post (%) 10/95**
Behavior Cluster I	81	95
Intellectual and School Status I	70	81
Physical Appearance	11	91
Anxiety IV	81	97
Popularity V	9	38
Happiness and Satisfaction	20	56
Total Score	49	96

Science Attitude:

Item Analysis	**Pre (%) 2/94**	**Post (%) 10/95**
Read/Talk	73	47
Investigate	83	75
TV/Films	80	80
Comfort/Discomfort	63	53
Learning Content	70	60

ISTEP Science:

Item Analysis	Pre (%) 3/93	Post 3/95
Select/Use Tools Observe	75	N/A
Use/Classify System for Sorting	75	
Select Valid Science	75	
Identify/Use Cause-Effect	50	
Identify Person/Event in Science	50	
Interpret Science Information	75	

CSI:

3/93	3/95
112	107

Torrance Streamlined:

Date	Fl	Or	Fl	Fx	Or	El
11/92	16	7	13	8	4	38
10/95	12	1	9	8	2	25

Final Grades:

Date	Math	Science	Social Studies	English
1993	(P. Alg) D	C	C	C
1995	(Alg. I) D	B	D	C

Writing Sample:

Date	Fl[1]	Fx	Or	El	El	Total
11/92	2	1	1	2	1	7
10/95	2	2	2	2	210	

1- Each category has a maximum value of three points for a total of 15 points possible.

5/95 "The Lion That Doesn't Roar"

One day in a small village Just inside Nigeria of Africa a small lion was born. He was to be named Louis. To his parents he was the cutest cub in the village, but not everyone thought that of Louis. He became an outcast and he began having a paranoid personality Disorder. He thought that he could not stand up to anyone because he was to worried about making friends. After about four or five years Another lion began to pick on him he could not stand up for himself because had never tried to roar. The lion got closer and Roared louder, but Louis kept Trying but he could not roar. Louis Decided to give up and He never tried to Roar again.

STUDENT OBSERVATIONS

Like many fourth graders, #IN-9 liked to play sports and draw comic strip pictures. "I'd like to grow up and be good at baseball or go into the marines. I want to do what my grandpa did." In sixth grade #IN-9 stopped drawing cartoons; his main interest became sports. He attended the GT college and enjoyed it so much he planned to attend every summer. Currently, #IN-9 plans to go to college and become a residential architect. "I like designing houses and things." He is taking a drafting class and working with CAD this year. His interest in sports is still strong, evidenced by his participation in the following athletic teams: basketball, tennis, golf and baseball.

TEACHER OBSERVATIONS

As an elementary student, #IN-9 was described by the g/t coordinator as "quiet, thinks before responding, but becoming more open with his thoughts. I believe his mother's death affected him greatly and he seems to just now be coming around." Before entering Project SPRING, #IN-9 had stopped doing schoolwork and showed little enthusiasm for school. The program encouraged #IN-9 to develop his talent for writing and drawing. #IN-9's fifth grade teacher elaborates, "The reason for his great interest in writing is that his mother also loved to write."

Now, as a high school ninth grader, his biology teacher refers to him as one of the students she has paid particular attention to because, "being aware that they were in Project Spring, it made me expect more of them. #IN-9 loves to draw and Project Spring bought him an art kit, and he just really cherished that and I think he's taking the g/t art and I think that's probably his area."

#IN-10

Benefit Most

CHILD DATA

Piers Harris Children's Self-Concept:

Item Analysis	Pre (%) 11/92	Post (%) 10/95
Behavior Cluster I	51	95
Intellectual and School Status I	49	70
Physical Appearance	25	91
Anxiety IV	37	70
Popularity V	27	52
Happiness and Satisfaction	20	90
Total Score	44	89

Science Attitude:

Item Analysis	Pre (%) 2/94	Post (%) 10/95
Read/Talk	80	73
Investigate	78	78
TV/Films	90	80
Comfort/Discomfort	67	60
Learning Content	70	75

ISTEP Science:

Item Analysis	Pre 3/93	Post (%) 3/95
Select/Use Tools Observe	N/A	100
Use/Classify System for Sorting		100
Select Valid Science		75
Identify/Use Cause-Effect		50
Identify Person/Event in Science		75
Interpret Science Information		100

CSI:

3/93	3/95
N/A	106

Torrance Streamlined:

Date	Fl	Or	Fl	Fx	Or	El
11/92	15	7	14	5	4	35
10/95	5	1	9	9	5	21

Final Grades:

Date	Math	Science	Social Studies	English
1993	A	A	B	A
1995	(P.Alg.) C	B	B	B

Writing Sample:

Date	Fl[1]	Fx	Or	El	El	Total
11/92	1	1	1	0	0	3
10/95	2	2	2	2	2	10

1- Each category has a maximum value of three points for a total of 15 points possible.

5/95 "The Lion That Doesn't Roar"

Once upon a time there was a lion that couldn't roar, he practiced every night but all that came out was a little squeak. He got so depresed, that he didn't want to go on. His friends all laughed and roared at him because he couldn't roar. Then one day he woke up and hear a lion yelping. He ran to see what it was and saw that one of his so-called friends was about to be eaten by a gorilla. He ran as fast as he could and attacked the gorilla. The gorilla ran away and the lion gained respect as a hero. From then on he protected the king and was never laughed at again.

STUDENT OBSERVATIONS

#IN-10 is on both the baseball and basketball team and would like to study English and Literature in college with the goal of being an "English teacher or something like that, high school or elementary, it really doesn't matter. Writing, I love writing. There are writing contests in our English class and anytime I can I just sit down and write stories or something whatever I can think of. I don't really like science, but if it involves writing, then I do."

TEACHER OBSERVATIONS

#IN-10's science teacher characterizes him as "an enjoyable child. He likes to answer questions and ask questions. He quite often has his hand up or if he doesn't I can see he's thinking through the problem. He shows high level thinking skills and does a good job on lab papers where thought, not neatness, counts. #IN-10 performed fairly well over the year. There were times when he wanted to drop the G/T class and get into the regular class. This seemed to be the biggest problem, especially when he would get back a poorly marked assignment or project or when I would assign a big project. "

"His strengths are in his abilities. He knows he has them, he never feels dumb when he makes a poor grade. He just doesn't want to spend the time to redo it. He also has an older sister who has gone through the program and an older brother. Both were great encouragement to him and kept telling him to stick with it. I think his mom encouraged him too but she was very sick and he spent a lot of time worrying about her. His biggest weakness is with what is going on at home. He has a lot of problems at home; his mother is dying of cancer (grandmother died not too long ago of cancer)...he has figured out it's hereditary, The younger children have never accepted how ill their mother is. I think they are very scared. I'm not sure at home how much support and help they get. They have moved a couple of times and that is always hectic. #IN-10's father is not really a factor in his life. His dad has some real problems. He is abusive (at least to mother) and an alcoholic and drug user."

"#IN-10's other weakness is not being willing to redo work. He always feels it was good enough the first time. When I'd get onto him he most often would make an attempt to redo it; but often his excuse would be that "something" was going on at home and he couldn't get it done. Overall, of Project Spring students I've had, he is above average. He is average for G/T."

HONORS

Honor Roll: 1993, 1994

#IN-11

Benefit Least

CHILD DATA

Piers Harris Children's Self-Concept

Item Analysis	Pre (%) 11/92	Post (%)10/95
Behavior Cluster I	32	13
Intellectual and School Status I	17	1
Physical Appearance & AttributesI	11	2
Anxiety IV	11	1
Popularity V	9	9
Happiness and Satisfaction	39	4
Total Score	27	9

Science Attitude:

Item Analysis	Pre (%) 2/94	Post (%) 10/95
Read/Talk	67	60
Investigate	75	58
TV/Films	70	70
Comfort/Discomfort	67	50
Learning Content	70	50

ISTEP Science:

Item Analysis	**Pre (%) 3/93**	**Post (%) 3/95**
Select/Use Tools Observe	N/A	75
Use/Classify System for Sorting		100
Select Valid Science Inform Source		25
Identify/Use Cause-Effect		25
Identify Person/Event in Science		25
Interpret Science Information		25

CSI:

3/93	**3/95**
N/A	111

Torrance Streamlined:

Date	**Fl**	**Or**	**Fl**	**Fx**	**Or**	**El**
11/92	16	6	7	6	7	44
10/95	10	1	14	13	4	48

Final Grades:

Date	**Math**	**Science**	**Social Studies**	**English**
1993	D	C	D	D
1995	D	D	F	D

Writing Sample:

Date	**Fl**[1]	**Fx**	**Or**	**El**	**El**	**Total**
11/92	2	1	1	1	1	6
10/95	2	2	1	2	2	9

1- Each category has a maximum value of three points for a total of 15 points possible.

5/95 "The Lion That Doesn't Roar"

the lion that does not roar went to a carnival got in a fight tried to roar at him with all of his might but lost and went back home with a ice pack made of foam got up the next morning with a not on his head he felt so bad he couldn't go back to bed. the next time he got in a fight it was with a boar lion had won the fight against the boar the lion that could not roar.

STUDENT OBSERVATIONS

#IN-11 is a soft-spoken, yet articulate individual who enjoys a pick-up game of basketball and "messing around with cars." He often works with his dad, a bricklayer, helping him calculate brick orders and create patterns. "I help him with that all the time. I like math cuz it's like what I do with my dad--figuring out how many bricks you need and stuff." #IN-11's father is described as "abusive and drunken," and his mother has a pattern of leaving and then returning to the home.

TEACHER OBSERVATIONS

When #IN-11 was in fifth-grade, his regular classroom work and behavior were so bad that his teacher wouldn't let him participate in Project SPRING.

His seventh grade science teacher characterizes #IN-11 as "a brilliant boy in a lot of way. Good verbal skills. He was a good kid, but yet he was extremely lazy and seemed to be a lot of times just not really interested in what was going on at all in the classroom...more or less just totally disinterested. But the one thing that did spark that boy was when we had science fair. He had a project, I think it was with electricity. He did the lemon electrical current project and he really got interested in that. He devised all of his hypotheses and drew his conclusions. When he drew all that up and had it all on his display boards he was just, I mean, he really got involved. He found out the background information he needed to know in his experiment. As long as that was going on last spring, he was right up there at my desk wanting more information and wanting to get this and that to get it prepared. He had to get this information, you know. He was always inquiring constantly what he could do to make it better. "

"When you could get him involved in experiments like that on his own he excelled. He would work hard at individual things were he was doing a lot of the work and taking it home and working with it. So, see, there's a lot of good things about him too; but, in the classroom setting you're just finished. I mean, he just wasn't there. Now I can't say he's not worthy, but I mean as far as a student of mine, I couldn't get the grades that I wanted out of him. That discouraged me. "

#IN-11's eighth grade teacher characterized him as having a friendly attitude when approached and good verbal skills. "He does very poorly on written tests and has a low work ethic; he rarely turns in assigned homework. He is currently getting a D- in science."

IN-12

Benefit Most

CHILD DATA

Piers Harris Children's Self-Concept

Item Analysis	Pre (%)11/92	Post (%) 10/95
Behavior Cluster I	40	81
Intellectual and School Status I	60	81
Physical Appearance	48	84
Anxiety IV	37	26
Popularity V	20	52
Happiness and Satisfaction	90	72
Total Score	63	89

Science Attitude:

Item Analysis	Pre (%) 2/94	Post (%) 10/95
Read/Talk	80	60
Investigate	73	73
TV/Films	80	70
Comfort/Discomfort	67	67
Learning Content	75	75

ISTEP Science:

Item Analysis	**Pre (%) 3/93**	**Post (%) 3/95**
Select/Use Tools Observe	N/A	50
Use/Classify System for Sorting		75
Select Valid Science		50
Identify/Use Cause-Effect		50
Identify Person/Event in Science		50
Interpret Science Information		100

CSI:

3/93	3/95
N/A	109

Torrance Streamlined:

Date	**Fl**	**Or**	**Fl**	**Fx**	**Or**	**El**
11/92	12	7	9	7	3	36
10/95	8	0	10	8	8	34

Final Grades:

Date	**Math**	**Science**	**Social Studies**	**English**
1993	C	B	B	B
1995	C	C	C	C

Writing Sample:

Date	**Fl[1]**	**Fx**	**Or**	**El**	**El**	**Total**
11/92	3	3	2	3	3	14
10/95	2	2	2	2	210	

1- Each category has a maximum value of three points for a total of 15 points possible.

5/95 "The Lion That Doesn't Roar"

One day a lion was having fun with all his friends when he swallowed a ball. He could still talk but one of his was laughing at him the lion got mad and tried to roar but he couldn't, all that came out was a peep peep. Aundrae (the lion) Ran of cring because his friends didn't like him anymore. When he got home his eyes were all puffy and he wasn't happy. His mother cared for him. He went to the animal hospital and got the ball out of his throat The next day he went back to playing with his friends. The End

STUDENT OBSERVATIONS

One of #IN-12's favorite subjects is science. "Last year for Science Fair I did something on water, I made a whole bunch of things on water, how it moves and stuff." But when she finishes high school what she really wants to be is a singer. "Me and my neighbor make up songs and we show them to our parents. We write down the words. I want to go somewhere after high school where they could teach me how to sing really good and then be a professional singer."

TEACHER OBSERVATIONS

#IN-12's ninth grade science teacher "worries the most about her as far as making it in her class. She is the quietest kid in class. She will not answer a question, even when I call on her. I think she feels intimidated by the "brains" around her. She might do better in a regular classroom where she was the brain. I think she would be more verbal. Her work is extremely lax--the only time I see it is the day after I show her her grade. She's not a good writer, has poor thought processes, incomplete ideas, poor grammar, spelling and handwriting. She'd probably turn red and pass out if I asked her to verbally take a test."

"I have met her mother and have seen her in action with her younger siblings, she has an abundance of patience and talks lovingly to them and about them. Her mother is very concerned about her work and said she doesn't have a lot of chores and has plenty of time to study."

#IN-13

Benefit Most

CHILD DATA

Piers Harris Children's Self-Concept

Item Analysis	**Pre (%) 11/92**	**Post (%)10/95**
Behavior Cluster I	81	95
Intellectual and School Status I	90	98
Physical Appearance	91	97
Anxiety IV	97	58
Popularity V	97	52
Happiness and Satisfaction	72	90
Total Score	99	95

Science Attitude:

Item Analysis	**Pre (%) 2/94**	**Post (%) 10/95**
Read/Talk	67	80
Investigate	88	75
TV/Films	100	70
Comfort/Discomfort	1993	73
Learning Content	95	80

ISTEP Science:

Item Analysis	Pre (%) 3/93	Post (%) 3/95
Select/Use Tools Observe	50	100
Use/Classify System for Sorting	100	75
Select Valid Science Inform	75	100
Identify/Use Cause-Effect	75	100
Identify Person/Event in Science	75	100
Interpret Science Information	100	75

CSI:

3/93	3/95
122	125

Torrance Streamlined:

Date	Fl	Or	Fl	Fx	Or	El
11/92	23	15	14	13	10	36
10/95	18	3	13	13	11	25

Final Grades:

Date	Math	Science	Social Studies	English
1993	B	B	B	A
1995	(Pre. Alg.) B	A	A	B

Writing Sample:

Date	Fl[1]	Fx	Or	El	El	Total
11/92	2	3	3	2	3	13
10/95	2	2	2	2	210	

1- Each category has a maximum value of three points for a total of 15 points possible.

5/95 "The Lion That Doesn't Roar"

Clifford was a humble, easy going kind of person. He had many goals, but his number one was to roar in a lion costume. One day walking down the road he saw a sign. It said help needed a chucky cheese. One lion to be simba in lion king act. Oh he was so happy he almost wet his pants. He applied for the job right away. Clifford got a letter in the mail. He got the job. When he went there he got his costume on and let out a large meow. Wait a minute that would not due. Every time he tried he went meow. Finally he bought a sound speaker that let out a big roooar and made all of the kids happy.

STUDENT OBSERVATIONS

#IN-13's proclivity to construct started at age four when he assembled a wheelbarrow and made a chair out of scrap wood. As an elementary student #IN-13 indicated that, "I like to play basketball and baseball. I read Jules Verne, like *Treasure Island, 20,000 Leagues Under the Sea*...I collect books. When I grow up, I plan to go to college and be a doctor."

As a ninth grader, #IN-13's favorite subject is biology. He vividly recalls a recent field trip: "We just went to Marengo Cave and mapped out a part of the cave, a part the tourists don't normally get to see. I really like school, but science is the only class I really pay attention in." When asked what he wanted to do in science, #IN-13 replied, "I want to like kind of move up, get into harder stuff, you know, learn more stuff. A lot of the time we're using the same books as we used last year, but we're going through them more thoroughly than last year, and we learned a lot last year. I like marine biology a lot and I like designing things. I like things that not too many people know about, like down in deep water, things like that, whales and fish. My dad, he's always liked sailing and he built his own sailboat. He didn't finish college and he said if he ever went back to college he'd like to take some courses on marine biology and water courses; but he taught me a lot about some of the things that he took and they sound really neat. My dad went to Florida State and he said it was pretty good down there."

#IN-13's interests are still punctuated by a desire to design and build. "I like working with tools and ag., but can't now because of an academic diploma. I did remodel a bedroom, put in new walls, bricked up a garage, put in new paneling and dry wall. Models, I love models; navy models, aircraft models. I've got a model I've been saving up for a long time, a remote control airplane and I got it two weeks ago and I've been working on it every weekend, I've also got lots of wood that I carve, faces and things. Really I've always like designing...it's like that thing that's on the radio, IDA or something. I called that one time and got like a designer kit. I was trying to make an ejection seat for a helicopter and it didn't work out too good. I've got a science fair project I did last year and I did pretty good with it. It's a solar home, and last year they gave me some good ideas like bumpers to absorb heat. I built it really good and it got 104 degrees inside of it. It's 18 x 24...it's pretty big and I've got a solar panel on the roof of it and I've got like a big glass part kind of like a skylight and the back. I've got like insulation. I can open it up and close it really nice. I did testing, field testing. I set it out in the sun for a day and I'd check it. It started out in the morning, the same temperature as my house and then it dropped to like the outside temperature and it rose up and about 1:30 PM--it got up to about 104 degrees. It was a lot of fun. I got awards, I got fifty dollars at Crane.

When asked what has influenced his interests, #IN-13 reflects, "I kind of had a lot of interest before I went to school, but they kind of really backed it up. You know you can do anything, I think, as long as you have a positive attitude."

TEACHER OBSERVATIONS

#IN-13's fifth-grade teacher reported he was in his element when class involved the outdoors. "He knew where to look for specimens for the aquarium and took some boys with him to show them how and where to look." During the sixth grade, his teacher recalls, "#IN-13 was eager to talk in class. He would feel comfortable with an adult imposing structure rather than relying on himself. He had good synthesis skills and always has his hand up in class." That same year, the g/t coordinator found #IN-13's biggest problem was "he won't write anything down or finish it."

Similarly, #IN-13's current teachers find "he will always have trouble meeting deadlines. I don't think he ever met a deadline in fifth and sixth grade. Now #IN-13 is a very personable kid and would have gotten along just fine, but #IN-13 is capable of a good deal more than he frequently shows and there are times when he will come up to that level. #IN-13 is not consistent, I don't know if that will happen with puberty or not...he's a neat kid. But because he's a neat kid he can get by with more than you can catch.

HONORS

Honor Roll: 1993, 1994 & 1995

#IN-14

Benefit Least

CHILD DATA

Piers Harris Children's Self-Concept:

Item Analysis	**Pre (%) 11/92)**	**Post (%)10/95)**
Behavior Cluster I	95	95
Intellectual and School Status I	81	81
Physical Appearance	91	91
Anxiety IV	97	97
Popularity V	69	86
Happiness and Satisfaction	90	90
Total Score	97	98

Science Attitude:

Item Analysis	**Pre (%) 2/94**	**Post (%) 10/95**
Read/Talk	87	47
Investigate	1993	58
TV/Films	100	80
Comfort/Discomfort	80	53
Learning Content	75	60

ISTEP Science:

Item Analysis	Pre (%) 3/93	Post (%) 3/95
Select/Use Tools Observe	75	100
Use/Classify System for Sorting	75	50
Select Valid Science Inform	100	100
Identify/Use Cause-Effect	75	75
Identify Person/Event in Science	25	75
Interpret Science Information	100	75

CSI:

3/93	3/95
116	118

Torrance Streamlined:

Date	Fl	Or	Fl	Fx	Or	El
11/92	14	5	14	11	5	63
10/95	20	3	13	11	4	27

Final Grades:

Date	Math	Science	Social Studies	English
1993	A	B	B	B
1995	C	D+	B	B

Writing Sample:

Date	Fl[1]	Fx	Or	El	El	Total
11/92	2	2	2	3	2	11
10/95	2	3	3	3	213	

1- Each category has a maximum value of three points for a total of 15 points possible.

5/95 "The Lion That Doesn't Roar"

Once upon a time in a faraway place, Lenny Lion tried to roar. But poor Lenny couldn't roar and he didn't know why not. Lenny decided to go to his doctor and set up an appointment. It came time to go to the doctor. The doctor took x-rays of Lenny's lungs and his voicebox to try to figure out how come he couldn't roar. But Lenny claimed that he had never smoked in his whole life. Lenny found out that the doctor was a fake and the doctor fled the village. Well, Lenny was mad and so was his family. The lion family decided that they would try to find the phony doctor, so they left town in search of him. The family found the doctor in a town not so far away from the village. Lenny was so mad that in his voice box there was a big roar. But Lenny didn't know it. Lenny found the phony doctor and trapped him in an alley. Then Lenny Lion roared in the doctor's face! And it was a loud, loud roar that was heard all over the world! But ever since then, Lenny hasn't been able to roar.

STUDENT OBSERVATIONS

As a fourth grader, #IN-14 was a shy, self-conscious student who liked sports, reading, watching television, biking and swimming. After high school she intended to go to college and become a lawyer. "Lawyers make good money and they're really honest...plus I like to solve mysteries."

In the ninth grade, #IN-14 had blossomed into a confident, articulate and directed individual. "I do best in English, drama and drawing. If the world ended tomorrow, just give me a piece of paper and a pencil and I would be happy. Recently I entered a poem in the school poetry book. My friends were really proud of me. I really like writing short stories and poems. I like classes where I can express my creativity."

Her future goals include "go to college and I also want to be in the Peace Corps, so that's a little dream of mine. That's a good dream, but it might not work out, hardly anything ever does like you think it will. I want either to be like an author and stuff and publish books or like work in a newsroom and do newscasting or anchor, or like a newspaper, where I'd get to write. My dad gave me the idea that after I get out of high school I could go to nursing school for a year, cause my mom's a nurse and so she could help me out with that. And I could go for a year and then I could sign up for the army for two years and be a nurse in the army. Then get out of the army and then the army could pay for my college courses or whatever. If I wanted so start a family and stuff like that, so that's a pretty good idea too. So I might consider going into medical stuff, I guess like nursing or doctoring."

"I don't have confidence in math and science though. I don't do well in those classes...or maybe it's just that I don't pay attention enough. My mom wants me to go into her herb business with her. My mom finished high school and my dad quit two weeks before high school. He's not very smart. He's good at math. I'm not gonna say he's stupid cuz I know he's not. He was kind of wild as a teenager I guess. He didn't get along with his parents, he didn't' get along with school, so he just quit. He always tells my brother and me that that was the biggest thing he regrets. He wants me and my brother to have a whole education like high school, four years of college. He's willing to pay for college if he can...he's a block layer right now."

"My parents want me to be smarter than they are. The want me to have a nice house and a nice car and have things they never had. They were so young when they got married. My mom was 18 and then 19 when she had me. My parents came from nothing. They always find something to make it...it's cool. They always find a way to make it. "

HONORS

Honor Roll: 1993, 1994, 1995

#IN-15

Benefit Most

CHILD DATA

Piers Harris Children's Self-Concept:

Item Analysis	Pre (%) 11/92	Post (%) 10/95
Behavior Cluster I	95	81
Intellectual and School Status I	90	81
Physical Appearance & AttributesI	97	91
Anxiety IV	90	81
Popularity V	86	69
Happiness and Satisfaction	90	56
Total Score	99	89

Science Attitude:

Item Analysis	Pre (%) 2/94	Post (%) 10/95
Read/Talk	87	73
Investigate	80	78
TV/Films	100	90
Comfort/Discomfort	87	77
Learning Content	80	80

ISTEP Science:

Item Analysis	Pre (%) 3/93	Post (%) 3/95
Select/Use Tools Observe	75	100
Use/Classify System for Sorting	100	100
Select Valid Science Inform Source	75	75
Identify/Use Cause-Effect	75	100
Identify Person/Event in Science	75	100
Interpret Science Information	100	100

CSI:

3/93	3/95
133	123

Torrance Streamlined:

Date	Fl	Or	Fl	Fx	Or	El
11/92	13	4	12	12	11	30
10/95	8	5	6	6	5	19

Final Grades:

Date	Math	Science	Social Studies	English
1993	A	B	B	B
1995	(P. Alg.)A	A	A	A

Writing Sample:

Date	Fl[1]	Fx	Or	El	El	Total
11/92	2	3	2	2	3	12
10/95	2	2	3	2	2	11

1- Each category has a maximum value of three points for a total of 15 points possible.

5/95 "The Lion That Doesn't Roar"

One day it was raining really hard and the lion was roaring at the cheata because he couldn't catch it the all of a sudden there was no sound because water dropped into his voice box and filled it up with water so, all he made was a little gurgly sound. The wise owl said that the only way that he could get the water out was make a stew with garfield's eyes and odie's tail. The story went on that the lion made it to Hollywood and was verry disapointed to find out that they were just cartoons.

STUDENT OBSERVATIONS

When interviewed as a ninth grader, #IN-15 recognized that she was "really shy in fourth grade. I didn't hardly have any friends....maybe one or two. I am much more open now. Odyssey of the Mind and Project Spring helped cuz you can't be shy and go and talk in front of people."

While #IN-15's self-confidence has grown, her aspiration to be an astronaut has been steady since the fourth grade. "I thought space stuff was really boring until all of a sudden, I guess it was Mr. Weaver, my fourth grade teacher said, "Isn't that amazing?" I said no, but then I really thought about it and yea, it is. It just sounds so interesting. You know, being a doctor or a lawyer just doesn't. Most of my friends think it's weird that I want to be an astronaut, but my friend Lindsey and me, we support each other. My dad doesn't think I can just be an astronaut. He thinks I need to specialize in something as well. Both my parents went all the way through college so they think education is important. I want to go to Stanford because I like being around a lot of people. It's in California, so it's a bunch of people and I like their school and their athletic programs. I play basketball, cross-country, track and fast-pitch softball. I start every, like four basketball games, cuz there are three guards that are about equal. I can't shoot very well, but I can play defense. That's why they put me in. I'm a pretty good hurdler. I went to Cleveland over the summer for a track camp and I got fifth in the regional meet. Right now I really want a Scholar Athletics T-shirt. If you play sports and make the honor roll three times in a row you get one. I really want the T-shirt."

TEACHER OBSERVATIONS

When comparing the Project Spring kids to the other students in class, the gifted and talented teacher finds that the self-esteem is higher in many Spring students such as #IN-15. "When we first started working with a couple of these students in fifth grade, they were lovely little girls; very shy, perhaps better than average writing skills. They were not in the regular g/t program but they could write very frequently. The shyness and the lack of self-confidence was apparent. As they started being pulled into leadership roles and small group activities and allowed to develop their talents they developed a great deal of self-confidence."

HONORS

Honor Roll: 1993, 1994, 1995

#IN-16

Benefit Most

CHILD DATA

Piers Harris Children's Self-Concept

Item Analysis	**Pre (%) 11/92**	**Post (%) 10/95**
Behavior Cluster I	95	95
Intellectual and School Status I	98	81
Physical Appearance & AttributesI	84	48
Anxiety IV	97	18
Popularity V	86	27
Happiness and Satisfaction	90	90
Total Score	99	74

Science Attitude:

Item Analysis	**Pre (%) 2/94**	**Post (%) 10/95**
Read/Talk	73	67
Investigate	78	80
TV/Films	80	90
Comfort/Discomfort	80	90
Learning Content	65	80

ISTEP Science:

Item Analysis	Pre (%) 3/93	Post (%) 3/95
Select/Use Tools Observe	100	100
Use/Classify System for Sorting	50	75
Select Valid Science Inform Source	100	75
Identify/Use Cause-Effect	100	75
Identify Person/Event in Science	25	75
Interpret Science Information	100	100

CSI:

3/93	3/95
136	137

Torrance Streamlined:

Date	Fl	Or	Fl	Fx	Or	El
11/92	19	11	14	14	8	35
10/95	12	0	14	14	11	34

Final Grades:

Date	Math	Science	Social Studies	English
1993	A	A	A	A
1995	(P. Alg)B	A	A	A

Writing Sample:

Date	Fl[1]	Fx	Or	El	El	Total
11/92	1	1	1	1	1	5
10/95	2	2	1	2	2	9

1- Each category has a maximum value of three points for a total of 15 points possible.

5/95 "The Lion That Doesn't Roar"

Once upon a time there lived a young lion cub named George. George lived in a jungle with his father and mother who was the King and queen. George wanted to be just like his father. His father was the biggest and bravest lion there was and George wanted to impress him. So when there was a contest at school on who could roar the loudest George entered.

George knew he couldn't roar, but he was hoping he could learn before the contest. George practiced every day, but he just couldn't do it. One day he was walking in the jungle when he came upon an old wise monkey. The old monkey walked up beside him and sat down. George didn't want to be rude so he sat down to. The monkey started telling a story all of sudden about a young lion that couldn't roar and all his friends made fun of him, but he didn't get mad or give up. He kept trying and as he grew up his roar became louder and louder until it was loudest in the world. George understood all of sudden that it was his father in the story. He looked up to ask the monkey his name he was gone. George felt so much better because he knew he would be able to roar he just wasn't old enough and he didn't have to impress his father because his father would understand. So George ran home and told his father all he had done. The End.

STUDENT OBSERVATIONS

"My parents, they finished high school but didn't go to college. I'll be the first one to go to college. I really want to go out of state. By the ocean, it doesn't matter where. I'd like to be an environmentalist or something with the environment. I used to write to the rainforest alliance, it's not as much now as I used to cuz I'm so busy with high school. I want to do something with science like zoology or like working at a reserve with animals. I care a lot about the environment, that's a big thing, I just like animals. I live out in the woods. I go camping and I walk a lot, like once a week I go for a walk. My dad, he has me pick persimmons and my papaw, I go with him mushroom hunting."

"I'm in drama club and I'm a cheerleader, It's hard, you have to make up cheers. I love it though, it's fun. We practice a couple times a week."

TEACHER OBSERVATIONS

#IN-16 stands out in the mind of her eighth grade science teacher. "At the time, I didn't know much about her home background, but as the year went on I learned about it. It was a situation where I have had situations similar to that before, that the kids didn't turn out like she was turning out. In other words, the family situation was very far from the best, In fact, she was living with grandparents at the time because her parents didn't have anything to do with her. She was a very sweet kid and hard worker. Based on what I've heard from other teachers coming up that she liked Project Spring and it's very possible that if this wasn't in place that she would have went the other way. She's a hard worker. It didn't come easy for her, she would ask questions. If it was something that she didn't understand she would ask and I really appreciated it. At times she struggled, but to make up for that she would want to do extra credit, I'd let her. She wanted her grades to be up, so she did what she had to do to get them up there. Most grading periods, she is on the honor roll."

PARENT INFORMATION

#IN-16 was a timid, soft-spoken fourth grader. She liked drama and cooking. Her grandmother, then and now the primary caretaker, wanted #IN-16 "to get a good education so she could make up her own mind on what she wants to do."

As a ninth grader, #IN-16's grandmother continued her support of #IN-16's academic success. "My grandmother likes it when I get good grades. She expects it. She says I'm one of the smart ones in the family. She expects me to go to college. My parents don't really give me support. They just expect me to get good grades...they're just used to me getting A's. They say, OK, you got an A, what's the big deal, what's the point? My parents just want me to make money. They don't really talk about education with me. They did get me into the 20th Century program, but they didn't even tell me about it, they just did it."

HONORS

Honor Roll: 1993, 1994, 1995
21st Century Scholar

#IN-17

Benefit Least

CHILD DATA

Piers Harris Children's Self-Concept

Item Analysis	**Pre (%) 11/92**	**Post (%)10/95**
Behavior Cluster I	65	65
Intellectual and School Status I	98	98
Physical Appearance & AttributesI	91	91
Anxiety IV	97	97
Popularity V	86	97
Happiness and Satisfaction	90	90
Total Score	99	99

Science Attitude:

Item Analysis	**Pre (%) 2/94**	**Post (%) 10/95**
Read/Talk	33	67
Investigate	75	88
TV/Films	60	90
Comfort/Discomfort	60	80
Learning Content	60	70

ISTEP Science:

Item Analysis	**Pre (%) 3/93**	**Post (%) 3/95**
Select/Use Tools Observe	75	100
Use/Classify System for Sorting	75	100
Select Valid Science Inform Source	75	75
Identify/Use Cause-Effect	100	75
Identify Person/Event in Science	50	100
Interpret Science Information	75	75

CSI:

3/93	3/95
89	83

Torrance Streamlined:

Date	Fl	Or	Fl	Fx	Or	El
11/92	16	12	7	7	5	51
10/95	2	0	4	4	3	20

Final Grades:

Date	Math	Science	Social Studies	English
1993	D	D	D	D
1995	D	D	C	D

Writing Sample:

Date	Fl[1]	Fx	Or	El	El	Total
11/92	1	0	0	0	0	1
10/95	2	2	2	3	211	

1- Each category has a maximum value of three points for a total of 15 points possible.

5/95 "The Lion That Doesn't Roar"

The lion named Jay didn't roar. I was just something that he hadn't been able to do since he was little. He lives by his self, because no on realy likes him. He just sat in the shade eating and drinking day afthe day after day. He was very lonely and had just one friend. A moose who lived in a hole by where he sat day after day. The moose like Jay because he couldn't roar and it wouldn't hurt his ears. One day the moose overheard someone talking and they knew now Jay could get his roar back. He was to go to this cave in Death Valley. The was suppost to be this stream and he was supppost to drink this water and it would make his roar come back. The next day Jay and the moose went to the cave and Jay drank the water. Jay told the little moose to hold his ear. Jay let out a big roar. from that day on he had lots of friends and lived hapily ever after.

STUDENT OBSERVATIONS

#IN-17 is a quiet, retiring student who would like nothing better than to ride his horse all day, draw or repair diesel engines with his Dad. Typical repairs include packing the wheel bearings, tightening bolts, changing the oil and replacing gaskets. His drawings are often unusual figures or accurate depictions of trucks or one of his eight horses. #IN-17 "likes to give my drawings away to people." When asked about his future goals, he is considering either mechanics or "training horses. I want to stay around here [Paoli], build a big house and a barn and work with horses."

School has been a struggle for #IN-17 He continues to be extremely shy, non-communicative and hesitant to join in classroom activities. He is currently just barely passing most of his classes with grades of either a D or D-.

PARENT INFORMATION

#IN-17 lives with both his mother and his father. His father drives semi-trucks and his mother, originally from Vietnam, works in the home. His mother would like #IN-17 to "go to college. He likes airplanes so maybe he will be a pilot and join the airforce." His father believes "it's a hard world to live in, you need to learn all you can to survive." J.D's father frequently takes him with when he is driving his semi-truck.

#IN-18

Benefit Most

CHILD DATA

Piers Harris Children's Self-Concept

Item Analysis	**Pre (%) 11/92**	**Post (%) 10/95**
Behavior Cluster I	95	65
Intellectual and School Status I	70	70
Physical Appearance & AttributesI	60	60
Anxiety IV	70	90
Popularity V	97	52
Happiness and Satisfaction	72	72
Total Score	91	71

Science Attitude:

Item Analysis	**Pre (%) 2/94**	**Post (%) 10/95**
Read/Talk	40	40
Investigate	45	35
TV/Films	60	20
Comfort/Discomfort	40	23
Learning Content	45	25

ISTEP Science:

Item Analysis	Pre (%) 3/93	Post (%) 3/95
Select/Use Tools Observe	100	75
Use/Classify System for Sorting	50	50
Select Valid Science Inform Source	75	50
Identify/Use Cause-Effect	100	75
Identify Person/Event in Science	75	75
Interpret Science Information	100	75

CSI:

3/93	3/95
96	1993

Torrance Streamlined:

Date	Fl Or	Fl	Fx	Or	El	
11/92	25	16	13	12	9	48
10/95	21	5	12	11	10	29

Final Grades:

Date	Math Science	Social Studies	English	
1993	B	B	C	B
1995	D	C	B	B

Writing Sample:

Date	Fl[1]	Fx	Or	El	El	Total
11/92	3	2	2	2	2	11
10/95	2	2	3	2	312	

1- Each category has a maximum value of three points for a total of 15 points possible.

5/95 "The Lion That Doesn't Roar"

Once upon a time there was a lion that lived on Mars who couldn't roar. The lions name was Sabeth. Sabeth was four month old, and his mother had died. She told him before he died that he had to keep his roar loud enough to scare anything that tried to hurt him. Poor Sabeth tried so hard to roar, but it just wouldn't come out. Then one day this big old bear come out of no where. Sabeth was a year old by then. Sabeth took off running, but he couldn't run fast enough. Then he saw a ghost that appeared to be his mother, and she said give it all you got with all your might. Tht is what Sabeth done. He let out the biggest and loudest roar on Mars. The bear got so scared he turned white, and fell over dead. Sabeth was so happy that he cold scare something twice his size. Sabeth could roar now and that's exactly what he did, but only when he was in any real danger he would give it all he had and all his might.

STUDENT OBSERVATIONS

#IN-18 was a painfully shy, soft-spoken elementary student who liked to play center for her basketball team, collect candles and read mysteries. "I like going out to the woods (Project Spring). It's made me see how you can go out, just look and see stuff."

As a ninth grader #IN-18 is still uncomfortable with speaking in public and doesn't "like giving speeches. I'm not very good at talking." Her interests have shifted to activities which allow her to work with her hands. She is eager to point out that, "Working with my hands is my greatest strength. I like to fix things. I reupholster furniture at the vocational school. I go every day. People bring their old furniture and we fix it up. I want to go to college but my family can't really afford it. I didn't know about the Twentieth Century scholarship program. I'd like to go to a two year college and stick to the furniture business. I enjoy that. I thought, after two years of the furniture business I would take two years of welding. I'd like to own my own furniture factory."

When asked which academic subject was her favorite, #IN-18 quickly replied, "Math is my favorite subject. It's what I do the best in. Really, I'm not fond of math. It's just what I'm best at. I like science, but I don't do real good at it. We're going down to the creek right now and getting the water temperatures and stuff like that. I get D's in science. I don't understand it."

PARENT INFORMATION

#IN-18's mother, a homemaker, and her father, a factory worker, both believe she should be "whatever you want to be when you grow up. Just be good at what you want to be...get a good education."

#IN-18 says her mom wants her to go to college and that her dad will support her in whatever she wants. She ends by saying, "I don't really think about the future. I just figure I'll deal with that when I get there."

#IN-19

Benefit Most

CHILD DATA

Piers Harris Children's Self-Concept:

Item Analysis	Pre (%) 11/92	Post (%) 10/95
Behavior Cluster I	81	81
Intellectual and School Status I	90	70
Physical Appearance & Attributes	84	97
Anxiety IV	81	70
Popularity V	86	86
Happiness and Satisfaction	90	90
Total Score	94	95

Science Attitude:

Item Analysis	Pre (%) 2/94	Post (%) 10/95
Read/Talk	87	100
Investigate	88	1993
TV/Films	90	100
Comfort/Discomfort	80	100
Learning Content	80	90

ISTEP Science:

Item Analysis	Pre (%) 3/93	Post (%) 3/95)
Select/Use Tools Observe	N/A	100
Use/Classify System for Sorting		75
Select Valid Science Inform Source		50
Identify/Use Cause-Effect		75
Identify Person/Event in Science		100
Interpret Science Information		50

CSI:

3/93	3/95
113	119

Torrance Streamlined:

Date	Fl	Or	Fl	Fx	Or	El
11/92	25	15	15	14	9	45
10/95	11	0	10	8	4	29

Final Grades:

Date	Math	Science	Social Studies	English
1993	A	A	B	B
1995	(P.Alg.)A	A	A	A

Writing Sample:

Date	Fl[1]	Fx	Or	El	El	Total
11/92	2	2	1	2	2	9
10/95	2	2	2	2	3	11

1- Each category has a maximum value of three points for a total of 15 points possible.

5/95 "The Lion That Doesn't Roar"

Once upon a time there was a lion named Leo. He wasn't your original mean lion the roared really loud, he was very quiet and shy. He had many friends and loved everyone of them equally. He was raised to be nice and polite. There something wrong with his voicebox and his vocal cords. He wasn't ashamed though. He knew he was different and special. That made him feel great. He always believed in himself and tried to help others learn. He taught many kids to be polite, how to look both ways, and to appreciate your parents. He really liked his life. One day, a doctor came to take care of him. Leo didn't know what he was going to do. After he got done, Leo had to go to bed because the operation made him tired and six. About two weeks later, he was suppose to go to a celebration. The future king was Leo and the lions wanted to show him to the whole kingdom. He stepped up on a platform and he was very rejoiceful. He let out a monsterous roar. Everyone knew he was going to be a great king. He always believed in himself and never gave up.

STUDENT OBSERVATIONS

#IN-19 is an extremely mature, well-spoken and focused ninth grader. She is currently enrolled in honors science, Spanish, health, physical education, algebra one, accelerated English and choir. She has been on the honor roll for the past two grading periods as well. Terry explains, "I'm making straight A's in all my classes except science I am making a B. But I think I can raise that with my next test. You have to have an interest in what you're studying and (in science) we're studying cells right now. That's not as hands on so it's harder for me."

#IN-19 likes school. Her favorite subject is math. "I'll take both algebra two and geometry next year so I can take calculus my senior year. I have lots of brothers and sisters so college is going to be hard for me. If I am third-ranked in my class, I can get a scholarship to go to college. It will be hard to do, but I'm going to try my hardest. I really want to go to IU. After college, I'd like to get a good job and have a family. I don't know what I want to study. I haven't decided yet. My career goals are open now. I'm waiting for something to spark my interest."

PARENT INFORMATION

Both of #IN-19's parents finished high school; her father works as a mechanic and her mother works as a cashier. #IN-19 elaborates, "My mom works and eight hour day on her feet all day so I have a lot of work to do at home. My dad didn't go to college but my uncle went to Rose Hulman and is doing real well. My dad has always been there for me. He thinks a lot of education. My dad wants me to go to school and try my best. He doesn't say what he wants me to do. He just wants me to go to college and do what I want. I try to do good in everything. I've been raised to never give up on anything. If I don't do my best, my parents let me know. It helps. It helps me keep going. I always try to do the best for them and me."

HONORS

Honor Roll: 1993, 1994, 1995
Named to Number One Club for excellent grades and attendance.
Member of the Math Mania team which placed first in the Southern Indiana conference competition.

#IN-20

Benefit Most

CHILD DATA

Piers Harris Children's Self-Concept

Item Analysis	**Pre (%) 11/92**	**Post (%) 10/95**
Behavior Cluster I	95	95
Intellectual and School Status I	98	98
Physical Appearance & AttributesI	97	97
Anxiety IV	97	97
Popularity V	97	86
Happiness and Satisfaction	90	90
Total Score	99	99

Science Attitude:

Item Analysis	**Pre (%) 2/94**	**Post (%) 10/95**
Read/Talk	80	87
Investigate	88	85
TV/Films	90	100
Comfort/Discomfort	1993	1993
Learning Content	75	85

ISTEP Science:

Item Analysis	**Pre 3/93**	**Post (%) 3/95**
Select/Use Tools Observe	N/A	100
Use/Classify System for Sorting		100
Select Valid Science Inform Source		50
Identify/Use Cause-Effect		75
Identify Person/Event in Science		50
Interpret Science Information		100

CSI:

3/93	3/95
122	104

Torrance Streamlined:

Date	Fl	Or	Fl	Fx	Or	El
11/92	17	10	13	12	9	40
10/95	5	2	11	11	4	42

Final Grades:

Date	Math	Science	Social Studies	English
1993	B	B	A	B
1995	A	A	C	B

Writing Sample:

Date	Fl[1]	Fx	Or	El	El	Total
11/92	2	1	1	2	2	8
10/95	2	2	2	2	210	

1-Each category has a maximum value of three points for a total of 15 points possible.

5/95 "The Lion That Doesn't Roar"

Once not so long ago there was a lion named Journey she was always traveling till one day she was caught in a net from there she was loaded into a big white truck while inside she roared and clawed at the metal but she could not get free. She was taken to a lab where people in white lab coat gave her a shot with a tranquilizer then she was put into a cage. Later when she woke up she was still drowsy so she slept some more The next day she when she woke up she was very angry so she was roaring very loud they gave her a shot with an antidote. She tryed to roar but she couldn't they gave her the wrong antidote. So they returned her to the wild the other lions would not come around her so she got lonely. One day she ate something and she could roar again she was so happy. the other lions would come around her again. So she wasn't lonely The END

STUDENT OBSERVATIONS

#IN-20 eagerly confirms that "I'm the only girl in the junior high, well the eighth grade football team. I was the first girl to play junior high football last year. If I play in ninth grade I'll be the first girl on the high school football team." #IN-20 shows equal conviction when discussing her future goals. "I want to go to college and become a marine biologist because I like water and I like animals, like dolphins, whales and stuff. I've been to the ocean four times. I went to Sea World and I got to see the dolphins and I've been scuba diving. I'm thinking about Florida State maybe. I know I need to get good grades and like study what I want to do, biology. Then I'll probably live somewhere close to the ocean so I can get a job as a marine biologist."

TEACHER OBSERVATIONS

#IN-20 is described by one of her teachers as "an interesting little girl, she's a little bit of a girl. She's a fairly strong student, always has been. She is a risk taker that I'm not so sure ever took risks before she encountered the (Spring) program. But she knows that she has other people behind her. #IN-20 plays football, when you see #IN-20 she is not even 100 lbs. dripping wet and she's maybe five feet tall, maybe not. She plays football on the boys' football team. She's a risk taker. She knows she can do it because she's been told that you can do it, #IN-20. "

#IN-20's science teacher characterizes her as "just an excellent kid. I mean I wish I could say, oh that one was really a bad student until we got her into Project Spring. But, basically she comes from a good family, a loving family. #IN-20 is shy, extremely shy, but since we had her involved in the Spring project there's a lot of where they have to get up and tell their results from an experiment. Recently she had to go to the school board and convince them to let us have a science fair for the whole school. I asked her to and she worked for a week preparing her speech. She has grown a lot because she's had this extra attention. She's not near as shy. I don't know if it's an academic thing, that I can say, yea she's a lot better off. But as far as being a human being and being in society...yea, it's been great for her."

HONORS

Honor Roll: 1994, 1995
Regular contributor to the school newspaper

South Carolina

#SC-1

Benefit Most

Reason student was selected for Project Spring
Torrance Test
Storytelling
Ravens Score

CHILD DATA

BSAP 95/583/1239

		TR	TM	Lang	3 R's	Tot Bat
STAN	93	14%	51%	62%		48%
	94	2/1	6/2	14/3	3/1	8/2
MAT	95	10/2	3/1	19/3	6/2	5/2

Gr. Range 60-95

Ravens Progressive Matrice
31/95%

Writing Sample

	Fl	Fx	Or	El	El	Total
Pretest	1	1	2	1	1	6
Posttest	2	1	2	2	2	9

Torrance Streamlined

	Verbal		Nonverbal			
	Fl	Or	Fl	Fx	Or	El
Pretest	8	1	14	12	5	49
Posttest	25	5	14	12	5	23

Piers-Harris Children's Self Concept

Posttest 29%ile

Pioneer Day: Product 8, Interview 6

BAPS

Pre: 7/36; Post 11/36

TEACHER OBSERVATIONS

"#SC-1's mother called concerned that #SC-1 might not pass third grade, but had been identified as having potential. As a result of being identified, #SC-1 has a project in the science fair that took second place. Someone identified that 'she could do it.'' Mrs. H.

"#SC-1 is always bringing in material from home and sharing it with the class. For example, she brought in an ant hill she made out of a mason jar with dirt and sugar." Mr. A.

"#SC-1 is in band this year. She has made a lot of progress." Mrs. H.

"She was working with a science project on her own time. She loves science. She has brought in and has initiated many differing science projects." Mr. A.

"There were family problems; the father is highly disabled. The mother is not working. But they are more stable now. The mother holds the family together." Mrs. A

"Alicia would ask to go to the library to do research for her science fair project. She used the computer and asked the librarian for help. I think she's become highly motivated, especially after being identified." Mrs. H.

In storytelling, #SC-1 contributes in class with original tales. "#SC-1 is talking to the class about her parents' fishing and hunting experiences," Mr. A recalls.

"#SC-1 is greatly limited by her reading ability." Mr. A.

PARENT OBSERVATIONS

#SC-1's parent says she has talent in and is really interested in singing and has done this for a few years. The parent reports that "she also likes to draw and create things at home."

#SC-1's mother thinks #SC-1 has improved since being identified. "I think (she's) doing better than (she) did last year." She thinks #SC-1's favorite subjects are "P.E., Home Ec., art, and science."

STUDENT OBSERVATIONS

#SC-1 says she enjoys math and science. She especially likes to do projects. "Last year I did a big project. It was my volcano. I used vinegar and red stuff in the bottom of a pail. It shot out the top. I had to put baking soda in it."

She won a prize for this project. She said receiving the prize made her "feel good. Everyone was proud of me. No one was saying, 'You couldn't do better.' They think you did the best you could."

In reading, #SC-1 likes short stories, naming a story that had riddles in it as her most recent favorite. "It belongs to you but you can't flee from it or see it. It's your future!" she related. She says she likes solving puzzles because "when you get to the last piece, it feels like you've really done something. You feel really proud."

#SC-1 said winning a prize at the science fair made her feel happy "and proud of what you did. Everybody else is proud of what you did."

She says those most proud of her were her mother, father, brother and sister. These are the people who help her with her homework. She works at a desk at home. Her mother and father help her with her reading, by sounding out words. "They let me study , they check my work, like spelling. If it's not right, they have me write it 10 or 5 times each." In math, #SC-1's older sister helps her by showing her how "to add stuff or helps me with my times tables."

#SC-1 says her favorite thing to do when her homework is finished is to draw. She likes to draw people, places and describes some pictures she's done as having "lots of details." She says she prefers using markers and then painting over that with water paints. She uses "regular brushes."

Family Data

Mother, 32, is a housewife. Her parents reside in Madrid and Valencia, Spain and she claims #SC-1 to be 1/4 Spanish. The mother says she was an A & B student in school, but dropped out in the 10th grade.

Father, 40, is a disabled tradesman. His family is from Georgia and he says he is 1/4 Cherokee, descending from his grandmother who was full-blooded.
Three siblings; two sisters and a brother. The oldest sister is involved in band, plays four instruments and has won awards. She is also a "supply sergeant" in ROTC.

#SC-2

Benefit Most

Reason student was selected for Project Spring
Writing Sample
Pioneer Day

CHILD DATA

		TR	TM	Lang	3 R's	Tot Bat
STAN	93	34/4	72/6	85/7	55/5	
MAT	95	54/5	48/5	63/6	54/5	

Gr. Range Mostly A's & B's, few C's

Otis Lennon 94 118

Writing Sample

	Fl	Fx	Or	El	El	Total
Pretest	3	3	3	2	3	14
Posttest	2	2	2	3	3	12

Torrance Streamlined

	Verbal		Nonverbal			
	Fl	Or	Fl	Fx	Or	El
Pretest	3	1	14	7	8	22
Posttest	6	3	14	4	12	20

Piers-Harris Children's Self Concept

Posttest 77%ile

BAPS
Pre 23/36; Post 28/36

Ravens Progressive Matrices: 33/75%

Pioneer Days: Product 9, Interview 6

TEACHER OBSERVATIONS
#SC-2's teachers report that she improvises in her projects. For example, in her science report about flowers, "boards were used to write and draw on instead of paper and poster board. Real flowers were added to the project." Mrs. F.

Toward the latter half of the year, the teacher noticed that #SC-2 was producing solutions and ideas that others did not think of. "#SC-2 was always quiet and shy. She had little confidence in herself. With Javits Gifted and Talented, she was encouraged to experiment knowing that there were no wrong solutions or situations. An ocean scene was created on a board." Mrs. F.

#SC-2s' creative efforts tend to make her a silent leader in the group. "In working on a group mural, she added trees and flowers 3-D. Others soon added to their pictures." Mrs. F.

#SC-2 in general has a "better interest in all subjects except math," which has improved also, reports her teacher.

In reading skills, #SC-2 "contantly read and made it into the Book Club with a specific number of books read last year." Mrs. F.

"She has really blossomed into a confident young lady," her teacher reports.

STUDENT OBSERVATIONS

When #SC-2 video-taped her autobiographical story, she had thought out a plot, some scripting was written out and she designed opening and closing "credits" that had the Warner Bros. symbol and her title and name. She narrated the tour of her room and playroom like a TV host ("This is #SC-2 speaking. I'll be taking you to my bedroom. Here's the door. Let's take a look inside. First I'll be showing you my posters...") Just below a poster of McCauleyt Caulkin was a small poster of the Cherokee Alphabet. When asked later during a school interview about this poster, she explained that during a trip to visit her grandparents in Maggie Valley she saw the alphabet and found it interesting. She asked her mother to get it for her and she's hung it in her room so she "can learn some of the letters," she says. When asked if she had any Cherokee heritage, she said, "Some. Way back."

#SC-2 says her favorite class is science. "I do pretty good in that. I like what our teacher wants us to learn. Right now we're learning astronomy. It's like learning about the solar system. We'll be making stuff to see how stars work later."

She also enjoyed making a catapult. "I liked doing that because you get to work with wood - something that will hold a ball andshoot it."

When asked if science was her number one class, she replied, "Well, other than recess."

#SC-2 says she likes math, especially learning to multiply. She then wrote a problem and solved it in about 3 seconds.

After school, #SC-2 goes to the Jack and Jill Nursery where she does her homework. The people at the nursery help her if she has a problem. If she has more homework to do, she does it at home in her room at her desk. Her mother helps her most of the time unless she has a math problem. Then her step-father helps her.

PARENT'S OBSERVATIONS

#SC-2's mother reports that she is a "natural dancer and an imaginative storyteller." She has done these things "since she learned to walk and talk."

"At family gatherings, #SC-2 likes to dress up and perform to music," her mother reports.

"#SC-2 has an imaginary friend named Jamison and she tells stories of her, her cousin and Jamison's adventures. Jamison is often mischievous and tries to get #SC-2 and her cousin to follow him into his mysterious capers," says the mother.

#SC-2 likes to write or draw things. She has written and illustrated a book already. She also enjoys exchanging pictures with her pastor. "She draws him and he draws her," explains her mother.

Her mother feels #SC-2 has a good memory and remembers family occasions from very early childhood. Also, she has a good memory of materials studies at school and at church, says her mother.

#SC-2 enjoys being read to. She is especially interested in art, karate, writing, physiccal fitness and family togetherness says her mother.
Her mother feels that #SC-2 "loves humor and is very enthusiastic about life."

Family Data
Mother remarried. Lives with mother, step-father, step-brother, step-sister.

#SC-3

Benefit Least

Reason student was selected for Project Spring
Storytelling
Ravens Score

CHILD DATA

		TR	TM	Lang	3 R's	Tot Bat
STAN	1993	57%	62%			
	94	63%	62%			
MAT	95	14%	26%	36%		16%

Gr. Range 85 - 99

Otis Lennon 94 76

Writing Sample

	Fl	Fx	Or	El	El	Total
Pretest	0	1	1	1	1	4
Posttest	2	1	1	2	3	9

Torrance Streamlined

	Verbal		Nonverbal			
	Fl	Or	Fl	Fx	Or	El
Pretest	5	0	8	8	0	15

BAPS
Pre 19/36

Storytelling: 5, winner

Ravens Progressive Matrices: 28/95%

STUDENT OBSERVATIONS

#SC-3 says math is his favorite subject because that's where "you learn how to count money." He performs a "money" problem by multiplying $20,000 by $50,000 and comes up with $100,000 in under 15 seconds.
The hardest subject for him is reading, he says. He likes to read about animals. He has three dogs, and had some fish.
Outside of school, #SC-3 likes to play "football (his favorite), baseball and knuckleball." His

favorite team is "Cowboys."
When he grows up, #SC-3 hopes to play football for that team.
"Sometimes" #SC-3 is a good student, especially in music, art. "I really don't draw that good, but I like to try."

Family Data
Two sisters, 13 and 7; brother, 9.

#SC-4

Benefit Most

Reason student was selected for Project Spring
Added later - teacher recommendation.

CHILD DATA

		TR	TM	Lang	3 R's	Tot Bat
STAN	1993	39%	35%			
	94	5%	6%			
MAT	95	14%	7%	22%		6%

Gr. Range 85 - 99

Otis Lennon 1993 95

Writing Sample

	Fl	Fx	Or	El	El	Total
Pretest	3	3	3	2	2	13

Piers-Harris Children's Self Concept

Posttest 38%ile

BAPS
Pre 23/36; Post 25/36

Ravens Progressive Matrices: 12/50%

Observations

STUDENT OBSERVATIONS

#SC-5's favorite subjects are math, reading and handwriting. She demonstrated her abilities by writing names is very exact cursive. She says she wants to be a writer when she grows up. She wants to write about her dreams. She relates about one dream where she and her sister went to Asia shopping for clothes and jewelry. Her favorite book currently is Treasure Island. Her favorite character was the captain who was marooned.
#SC-5 says she's a good student and that no subject is particularly hard.
She's written "books" she says. She wrote about her mom - "She's a hard worker. She works as a secretary."
When she grows up, she wants to be a "writer and a babysitter."

Family Data

Lives with brother, baby sister and mom.

#SC-5

Benefit Least

Reason student was selected for Project Spring
Pioneer Day
Ravens test results

CHILD DATA

BSAP 95/527/1239

		TR	TM	Lang	3 R's	Tot Bat
STAN	1993	35/4	60/6	62/6	47/5	35/4
	94	35/4	78/7	43/5	50/5	39/4
MAT	95	24/4	51/5	24/4	30/4	21/3

Gr. Range 78 - 95

Ravens Progressive Matrices
30/95%

Writing Sample

	Fl	Fx	Or	El	El	Total
Posttest, only	1	1	2	1	2	7

Torrance Streamlined

	Verbal		Nonverbal			
	Fl	Or	Fl	Fx	Or	El
Pretest	4	0	11	2	4	33
Posttest	2	0	6	3	2	8

Piers-Harris Children's Self Concept

Posttest 91%ile

BAPS
Pre 4/36%; Post 15/36%

Pioneer Days Score:Product 9, Interview 7

TEACHER OBSERVATIONS

"#SC-5 is not affected by much. She doesn't respond." Mrs. D.
"It's hard to pull stuff out of her." Mrs. D.
"You can't figure on what she knows." Mrs. D.

STUDENT OBSERVATIONS:

During a video taped interview at the school, #SC-5 first appeared shy and a little nervous about the camera. It took about 5 minutes for her to warm up to talking.
When asked what special talents her teachers told her she had, #SC-5 quickly responded that they told her, "Don't be ashamed, just go out there and express your real feelings."
#SC-5 says it makes her "feel happy" when teachers tell her she has talent. She thinks that when she's happy she works better in school. Other things that make her happy are "if I have a project - that makes me happy." She especially liked working on the volcanoes project and used her hands to show how to build the volcano.
Her favorite subjects are math and reading. She said specifically why she liked math. "You get to add real problems like 4,329 times 4." Then, upon request, she worked the problem in 15 seconds and came up with 17,356 (correct answer) with the comma in the correct place and evidence of using "carrying" method to cipher. "I like to do bigger problems," she said after finishing the work.
#SC-5 says she feels "great" when she knows how to do something.
"Sometimes in reading I ask questions and if I have a big word, I sound it out," she reports.
At home she likes to "make beds and inspect the cover. That's fun," she says.
She also likes to play basketball and thinks her best shot is the 3 point. She says she plays with neighbors.
Her mother is her best source for "advice" she says, and is also her best helper during homework, which is done "at the table." Her mother "helps sound it out if its big or long word."
#SC-5's favorite book is *The Little Mermaid*. She also likes singing, and sings in her church choir. She named three of her favorite songs to sing.
#SC-5 thinks that people "would like me because I'd be nice to them."

PARENT OBSERVATIONS:

#SC-5's mother reports that #SC-5's talent is in storytelling, something she's done for two years, now. #SC-5 is very good at telling the story, *The Three Little Pigs*. Her mother sees #SC-5 as a leader with other children. She thinks her daughter has a good memory and reads a lot, especially story books and her school books. She has been reading since she was six, her mother reports.

#SC-6

Benefit Least

Reason student was selected for Project Spring
Pioneer Day
Torrance Test

CHILD DATA

	TR	TM	Lang	3 R's	Tot Bat
STAN	1993	214/3	58/5	32/4	27/4
	94	4/2	42/5	19/3	14/3

Gr. Range 85 - 99

Writing Sample

	Fl	Fx	Or	El	El	Total
Pretest	2	1	1	1	1	6
Posttest	1	1	1	1	1	5

Torrance Streamlined

	Verbal		Nonverbal			
	Fl	**Or**	**Fl**	**Fx**	**Or**	**El**
Pretest	3	1	12	3	0	14
Posttest	0	0	12	5	0	10

Piers-Harris Children's Self Concept

Posttest	57%ile

BAPS
Post 21/36

Pioneer Days Product 9, Interview 7

Observations

PARENT OBSERVATIONS
#SC-6's mother reports that he "loves to sing and dance" ever since she can remember.

STUDENT OBSERVATIONS

#SC-6 is 12 in the fourth grade. His favorite subject is math, especially multiplication. He especially likes to count money. He worked a single digit problem, using his fingers to cue. It took him about 7 seconds. He likes the nines tables the best.

In science, he enjoyed learning about he moon, the first person who went on the moon. "It was a lady," he says. When they made catapults, "we set the spoon, and the wheel on the cart," and this made the "thing shoot."

He also likes spelling.

At home, #SC-6's mother helps him with his homework by calling out the words while he writes them. Sometimes he does his work in a "quiet place" such as his room. His "mama" will come in and help him.

He likes to play football with his cousins.

When someone tells him that he's good at something, it makes him feel happy and important. His uncle tells him he's good at football, especially playing tackle.

#SC-6 wants to go to college and learn about playing football. He might go to Clemson. His mother will help him go to college. She encourages him now by telling him to keep his grades up and stay in school and not quit.

His favorite book so far was about snakes.

Family Data

Brother, 3. Mother

#SC-7

Benefit Least

Reason student was selected for Project Spring
#SC-7 was the winner of the Storytelling contest with a very high score of 13.
Pioneer Day
Ravens score

CHILD DATA

BSAP 95/546/1239

		TR	TM	Lang	3 R's	Tot Bat
STAN	1993	81/7	1993 /8	91/8	91/8	1993/8
	94	16/3	9/2	17/3	10/2	14/3
MAT	95	17/3	1/1	4/2	4/2	3/1

Gr. Range 70 - 83

Writing Sample

	Fl	Fx	Or	El	El	Total
Pretest	1	1	1	1	1	5

Torrance Streamlined

	Verbal		Nonverbal			
	Fl	Or	Fl	Fx	Or	El
Pretest	0	0	12	0	7	21
Posttest	1	0	7	7	2	35

Piers-Harris Children's Self Concept

Posttest 77%ile

Storytelling Winner: 13

BAPS
14/36

Pioneer Days: Product 6, Interview 9

TEACHER OBSERVATIONS

#SC-7 was a huge behavior problem last year, say his teachers. They all agreed that he is very creative, but is hampered in academic success by his very low phonics skills. They report that #SC-7 is on Ritalin this year.

"#SC-7's mother spoke with great concern. She felt he could do the work but wasn't. He has a great lack of reading skills. The mother tends to put more attention on Kikka, the girl and not on the boys. They struggle. In #SC-7, there's an intelligence there. But behavior is the issue. He has good reasoning skills." Mr. A.

"He can go through half my discipline plan in ten minutes. He's so far behind. He needs lots of remedial work. He tries. But he gets mad, frustrated very easily. He can talk your ear off." Mr. A.

STUDENT OBSERVATIONS

#SC-7 feels his talent is in drawing. He especially likes to draw cars, trucks and men. His favorite model is "X-Man." When asked if he planned out his drawings, if he knew how the drawing would turn out he said that he didn't plan. "But it feels good knowing how its going to come out in the end," he added. He said, for example, his uncle got a new truck and he wanted to draw it. "Let me try," he said, challenging his uncle's taunt that maybe he couldn't.

#SC-7 says he also likes writing, especially stories. He wrote a story about his mom, "her opinions, stuff like that." When asked if he could spell opinion, he did so correctly. He said he likes to write and use big words.

At home, #SC-7 likes to play, he says, especially games with his two brothers. #SC-7 says they play sports at home, too, such as kickball and basketball.

#SC-7 says he likes everything in school, but he especially likes times tables like 5's and 10's. He then related the five's table quickly.

In science, #SC-7 especially likes to use the microscope. He "likes looking at bacteria - that's germs."

#SC-8

Benefit Most

Reason student was selected for Project Spring
Winner of Storytelling contest
Writing Sample

CHILD DATA

BSAP 95/583

		TR	TM	Lang	3 R's	Tot Bat
STAN	1992	36/4	35/4	41/5	28/4	
	1993	13/3	3/1	29/4	7/2	6/2
	1994	16/3	63/6	23/4	28/4	32/4
MAT	95	12/3	25/4	7/2	10/2	10/2

Gr. Range 70 - 96

Ravens Progressive Matrices
15/50%

Writing Sample

	Fl	Fx	Or	El	El	Total
Pretest	3	2	2	3	2	12

Torrance Streamlined

	Verbal		Nonverbal			
	Fl	Or	Fl	Fx	Or	El
Pretest	4	1	10	10	1	49
Posttest	0	0	6	2	0	14

Piers-Harris Children's Self Concept

Posttest 31%ile

BAPS
Pre 8/36; No Post

#SC-8 was retained in second grade.

Writing Example

The Flying Monkey

His name is Tery
One day I saw a Flying Monkey and he was brown and he suit was purple and blue and he was going to town to get some growstree.Aferhe went home and cook some food he
cook gits and egg. the next day he for a fly around. afert he have a he a round. he have breakfast band and egg. He went to he's Friend an

TEACHER OBSERVATIONS

Inventions, ideas: "#SC-8 told her class how she would make a house out of popsicle sticks. She went into great detail telling us how she would build her 'house.'" Mr. A.

Solutions, ideas: "#SC-8 works hard to tell the class what she thinks. Once she told the class how to stop crack addiction. Her solution was 'capital punishment for abusers/users.' She claims to have a crack-addicted mother. She is being raised by her grandmother." Mr. A.

Influences others: "#SC-8 is the leader. She pushes kids around and MAKES them do what she wants." Mr. A.
"Bossy." Mrs. B.

Humor: "#SC-8 is always writing sentences and stories about differing children in my class who love each other." Mr. A

Subject interest: "#SC-8 likes all subjects, but complains most of the time about everything. You name it, she complains about it." Mr. A.
"#SC-8 is very pleased with her performance working on her project for the science fair." Mrs. B.

STUDENT OBSERVATIONS:

In a video taped interview #SC-8 reports that her special talents are reading, "school stuff" and basketball. She eloquently recited her favorite book report: "My favorite book report that we checked out of the library is *The Call of the Wild*
by Jack London. It has wolves and stuff in it. It got funny stuff in it and it's interesting."
"I also checked out a fake book in the third grade. No, it was real. It was about Martin Luther King and his dream."
She lists math, spelling, social studies as her favorite subjects, and adds that "almost all of my subjects" are fun.
When asked what was the most interesting thing in math, she explained how they measured "centimeters, meters and kilometers." She reports that "we have fun doing this in science and math."
#SC-8 likes to do science fair projects. Her project this year "was like flowers and mosses inside a big old jar. And I had a little girl - one of my Barbie dolls - inside it. I got third place. That made me feel happy because they said I did a good job and someone wrote a letter to me. She said it was very good. She said she thinks that I should do some of these things again."
#SC-8 reports that she lives with her grandmother, who is very helpful with homework. When #SC-8 encounters a "tough problem", the grandmother helps her "sound it out." She works at the dining room table.

#SC-8 says her mother lives in New York, where she has visited before and saw "really pretty clothes." #SC-8 says she has 13 brothers and sisters that live in New York and Jamaica. She says she and her brother have lived with her grandmother in Elloree since she was 3 years old.

PARENT OBSERVATIONS

"She's doing better over the last three years," says her grandmother. "She's beginning to be more responsible. She's taking better care of (herself) and doing better in school," she reports in a video interview #SC-8 did.

Her grandmother thinks #SC-8 enjoys going to school. "She loves to dance. She needs to do better in math, science and language. She just doesn't like to listen to the person in control. (She) likes to be in control."

When asked about #SC-8's future, her grandmother says, "I want (her) to be someboy. I want (her) to finish high school, go to college and be somebody. I want (her) to be the best that (she) can."

Family Data

#SC-8 says her mother lives in New York, where she has visited before and saw "really pretty clothes." #SC-8 says she has 13 brothers and sisters that live in New York and Jamaica. She says she and her brother have lived with her grandmother in Elloree since she was 3 years old. #SC-8's grandmother attended every parent meeting and called me (N.B.) long distance to see how #SC-8 qualified for SPRING.

#SC-9

Benefit Most

Reason student was selected for Project Spring
Pioneer Day
Torrance Test
Ravens score

CHILD DATA

BSAP 95/600/1239

		TR	TM	Lang	3 R's	Tot Bat
STAN	94	45/5	92/8	63/6	67/6	51/5
MAT	95	15/3	65/6	78/7	44/5	38/4

Gr. Range 83 - 100

Ravens Progressive Matrices
31/95%

Writing Sample

	Fl	Fx	Or	El	El	Total
Pretest	2	1	1	3	2	9

Torrance Streamlined

	Verbal		Nonverbal			
	Fl	Or	Fl	Fx	Or	El
Pretest	7	0	14	11	6	39
Posttest	5	0	14	7	10	21

Piers-Harris Children's Self Concept

Posttest 77%ile

BAPS
Pre 14/36; Post 18/36

Pioneer Day Score: Product 8, Interview 6

TEACHER OBSERVATIONS:
"#SC-9 has an attitude problem. She has potential but attitude is the barrier. She is disrespectful." Mrs. L.

Improvisational: "She is always working with some object, trying to put to some use, it was not intended for." Mrs. L.

Inventions/Ideas: "She likes to be doing something wtih her hands and with objects. Usually at times, she should be listening in class." Mrs. L.

Storytelling: "She can come up with unique stories about why she can't do what she is told to do." Mrs. L.

Solutions: "Sometimes she will come up with some solution that is 'far out.'" Mrs. L.
Leadership: "She is a good leader, frequently in the wrong way. She gets other students into trouble." Mrs. L.

Humor: "She likes to be funny. She likes to be the center of attention." Mrs. L.

Interests: "She is a fairly good student in all subjects. She likes science." Mrs. L.

PARENT OBSERVATIONS:

#SC-9 has talent in storytelling, her mother reports. She also shows leadership in sports and ball games. Her mother also feels #SC-9 has a good memory and reads a lot. "She is a very good reader," her mother says, and reads "anything."
#SC-9's grandmother says #SC-9 likes to do puzzles. She likes to go to church, where she sings in the choir and helps with the services.
The grandmother thinks #SC-9 loves math the best of her subjects but also likes science. She also thinks #SC-9 is very good at basketball. She hopes #SC-9 will go to college and "become extremely successful in whatever she wants and lives happy and gets the best out of life."
The grandmother thinks #SC-9 doesn't like social studies because it's not exciting. She encourages her to study that first so she can save math for last.

STUDENT OBSERVATIONS:

#SC-9 reports that she likes math and recess best. She also likes it when they get lots of treats in class. "That is extremely good," she says.
At home, she likes to "get a lot of sleep", play games and be noisy.
At church, she likes to sing "in the big kids choir."

Family Data
Mother was a student in "biomedicine" at South Carolina State College prior to her marriage and birth of #SC-9. She has resumed her studies and hopes to become a nurse or doctor one day.

#SC-10

Benefit Most

Reason student was selected for Project Spring
Pioneer Day
Torrance Test

CHILD DATA

		TR	TM	Lang	3 R's	Tot Bat
STAN	92	8/2	51/5	11/3	18/3	

No other tests; identified as Learning Disabled.

Gr. Range A's - D's, mostly B's

Ravens Progressive Matrices: 11/5%

Writing Sample

	Fl	Fx	Or	El	El	Total
Pretest						
Posttest	2	1	1	2	2	8

Torrance Streamlined

	Verbal		Nonverbal			
	Fl	Or	Fl	Fx	Or	El
Pretest	1	0	14	4	7	18
Posttest	6	2	14	6	13	17

Piers-Harris Children's Self Concept

Posttest 82%ile

BAPS
Pre 17/36; Post 22/36

Science Attitude

Pioneer Day Score: Product 11, Interview 5

TEACHER OBSERVATIONS

#SC-10's teacher reports that he improvises with materials in his school work. "He used a paper clip to fasten his bookbag together one day." Mrs. F.
"#SC-10 invented a 'hand pointer' for either left handed or right handed peole. It looks like a glove (fits over the hand) and points in a given direction." Mrs. F.
"#SC-10 was always folding and making different designs with paper. (Even in class when he was supposed to be doing something else.)" Mrs. F. This influenced other children to do the same thing. "Since being identified toward the last half," this occurs more often, his teacher reports.
#SC-10 creates stories to enhance reports, says his teacher.

STUDENT OBSERVATIONS

When #SC-10's teachers told him he had potential, he said that meant "things you don't know you can do yet." He said they told him he had good writing skills and that they observed that he was very neat. #SC-10 said that these comments made him feel "happy, like you just want to get up and do something - like go hunting, fising, playing video games."
#SC-10 has extensive hunting experience with his dad and grandfather. His own pellet rifle is something he is responsible for. Rarely, however, he is allowed to hold and sometimes sight in his father's automatic rifle.
#SC-10 describes the hunting trips in this narrative: "We leave at four int he morning. We find deer tracks and then get up in a tree and wait for the deer to come. Then we shoot it." He described a deer track in detail. He also explained how to look for other signs of their presence. "If you haven't been there before, no one else either, then you look to see if a stick has been broken. You know a deer or squirrel did that."
#SC-10 described the difference between a "coon nest" and squirrel's nest. "A 'coon nest is a lot bigger, like in oak trees. We never found a 'coon nest in a pine tree. Maybe that's because of the smell or the sap."
#SC-10 described his grandmother's farm where they hunt. He told of a "forest fire" that burnt an old cabin, and how he and his grandfather and father put out the fire. Their plans for Thanksgiving included cleaning up that old cabin so that it could be used as a hunting camp again.
The process of a deer kill includes, for #SC-10, "dragging it to the end of the woods. Then pa asks me to hold the guns. And then we put it in the truck."
#SC-10 interjected a story about retrieving ducks, telling of his adventure shooting the duck and finding it where it fell in the trees. He explained how to pluck the feather off, take the skin off and pull out the legs. He said the duck should be scraped, then washed and cut open "to get the guts out."
"One time I shot four squirrels and one duck in one day. I cleaned them all myself."
#SC-10 advised that it is wise to "shoot a 'coon in the head so you can sell the fur."
Rules his father has taught him about handling guns includes that they always be put into the gun cabinet immediately after coming home, before cleaning the catch of the day.
#SC-10 described cleaning a squirrel as this: "Peel skin off, cut the head off - that's the nasty part because sometimes blood squirts out. Then you cut the back one. You open it oup and get all the guts out of it."
#SC-10 really enjoys hunting on his grandmother's farm. He says her mother was "full-blood Cherokee."
He is proud of his abilities and says that "in three years, I'll have a hunting license. Then I can go hunting. I can go alone now only if my daddy's at my grandma's house when I go out."
#SC-10 also described adventures catfishing and talked about the time they went sea fishing. "We caught a 287 lb. tuna. It took two grown ups and 2 kids to pull it out."
In school, #SC-10 lists math as his favorite subject. He demonstrated his ability to multiply 22x33=

726 in about nine seconds. He also likes to read and chose "Black Beauty" as the best book he's read this year. He was interested in horses because they had "two black stallions on the farm in Santee" several years ago. "Something happened to both of them," he explained. "A wolf bit it. Our dog (Like Rin-TinTin) - him and this wolf got into a fight. He died. We had to lock him up in a cage. The wolf came back two weeks laer. I shot him - BAM! BAM! He hit the ground."

#SC-10 says that science is hard. "I can't understand the teacher," he says. "Last year, with Mrs. (F) it was easier. Me and a partner did two experiments together." He explained with lots of gestures how much fun that was.

When he is doing homework at home, his mother helps him. #SC-10 says his dad works 7 a.m. to 5 p.m. His mom will help with questions in reading especially. "If I didn't know how todo my reading, like answer the questions, she would tell me how to do it, the first one."

#SC-10 does his work at the kitchen table. Sometimes he works "at the bar if my older sister has friends over. "

When his work is done, he likes to play "cops and robbers, ride bikes, ride the dirt bike. But my sister wrecked it. A piece of th emotor flew in the ditch. We'll all pitch in to fix it."

When asked if he would use allowance money, he said he didn't get an allowance, but his father would give him "five bucks if we pass a grade and take us out to eat." He also said he "earned the money in my pocket today from mowing grass and raking the yard."

#SC-10 wants to be a lawyer when he grows up. "My stepdaddy's a lawyer. My mom said she'd help me out going to college. If I can't be a lawyer, I want to be a basketball coach."

Family Data

Lives with father, mother and siblings.

#SC-11

Benefit Most

Reason student was selected for Project Spring
Pioneer Day
Torrance Test

CHILD DATA

		TR	TM	Lang	3 R's	Tot Bat
STAN	1993	59%	71%			
	94	91%	98%			
MAT	95	65%	80%	71%		69%

Gr. Range 85 - 99

Otis Lennon 94 111

Writing Sample

	Fl	Fx	Or	El	El	Total
Pretest	2	3	3	3	3	14
Posttest	2	2	2	2	2	10

Torrance Streamlined

	Verbal		Nonverbal			
	Fl	Or	Fl	Fx	Or	El
Pretest	10	6	14	5	2	20
Posttest	14	12	14	12	9	36

Piers-Harris Children's Self Concept
Posttest 91%ile

BAPS
Pre 20/36; Post 28/36

Pioneer Day: Product 10, Interview 4

Ravens Progressive Matrices: 14/50%

STUDENT OBSERVATIONS

#SC-11 remembers studying the water unit last year. They studied the difference between pond water and ocean water. They also looked at rocks.

#SC-11 says one of her favorite subject in school is social studies, because they talk about space and the Statue of Liberty. She also likes spelling.

Nothing is particularly hard for #SC-11 she says. Sometimes math is hard because of the long divisions.

She likes to spend time with her cousin at home. She also likes to draw, especially "normal people."

When she does her homework, she studies at the kitchen table. Her older sister helps her.

#SC-11 thinks she'll "probably be a doctor" when she grows up.

She is proud of her good grades.

Family Data

Six siblings, 4 brothers, 17, 14, 13, 8; one sister, 12. Mother and father live at home.

#SC-12

Benefit Most

Reason student was selected for Project Spring
Pioneer Day
Torrance Test
Writing Sample

CHILD DATA

		TR	TM	Lang	3 R's	Tot Bat
STAN	1993	97%	99%			
	94	92%	78%			
MAT	95	6/2	28/4	38/4	16/3	

Gr. Range 85 - 99

Otis Lennon 94 103

Writing Sample

	Fl	Fx	Or	El	El	Total
Pretest	3	3	3	3	3	15

Torrance Streamlined

	Verbal		Nonverbal			
	Fl	Or	Fl	Fx	Or	El
Pretest	8	1	14	12	4	31
Posttest	17	17	13	13	1	22

Piers-Harris Children's Self Concept

Posttest 23%ile

BAPS

Pre 21/36; Post 23/36

Pioneer Day: Product 8, Interview 6

STUDENT OBSERVATIONS

#SC-12 enjoyed science last year. She liked the field trip to the beach where they studied "the difference between salt water and regular water."
Her favorite subjects are math, social studies and spelling. She likes math the best. She says it's

"challenging" and she especially likes to do multiplication. She demonstrated doing a two-digit problem, carefully using several CBM cues, and achieving the correct answer in about 35 seconds. She felt that the tables were "kinda" hard to learn. Her teacher helped by "teaching us differently." #SC-12 says her grades are good in math.

#SC-12 thinks science is the hardest subject, "because everytime we study a long time and we get a test, you forget some things."

Out of school, #SC-12 likes to play with her computer. She likes playing games, and especially likes to use Paintbrush. She studies at her "table."

When she grows up, #SC-12 would like to be a"comolologist" and do people's hair. Her cousin has a beauty shop in their home and #SC-12 likes to visit there.

Family Data

Lives with grandmother and aunt.

#SC-13

Benefit Most

Reason student was selected for Project Spring
Winner of Storytelling contest
Torrance Test

CHILD DATA

BSAP 95/719/1239

		TR	TM	Lang	3 R's	Tot Bat
STAN	1993	57/5	74/6	89/9	70/6	79/7
	94	51/5	43/5	39/4	46/5	44/5
MAT	95	24/4	14/3	48/5	25/4	22/3

Gr. Range 75 - 99

Ravens Progressive Matrices
36/95%

Writing Sample

	Fl	Fx	Or	El	El	Total
Pretest	2	1	1	3	2	9
Posttest						

Storytelling
A winner, score - 9

Torrance Streamlined

	Verbal		Nonverbal			
	Fl	Or	Fl	Fx	Or	El
Pretest	7	2	14	12	4	28
Posttest	3	0	9	5	3	38

Piers-Harris Children's Self Concept

Posttest 29%ile

BAPS
Pre 22/36; Post 26/36

TEACHER OBSERVATIONS

"#SC-13 is a very good student in everything." Mrs. D.

"He's like a little man when he talks to you. He asks me, 'When am I going to get to come to your room?'" Mrs. L.

"#SC-13 has been exposted to lots of positive and negative things in his life. He is a resilient child to have overcome great odds." Mr. A.

"He's reading on grade level." Mrs. D.

"His adopted mother comes to all parent meetings. She used to be the computer lab aide here; now she works with the center for mentally retarded adults." Mrs. L. & Mr. A.

PARENT OBSERVATIONS

#SC-13 is a foster child who has been adopted by Minnie, a single woman who has had a tremendous influence on him, say teachers. Minnie reports that #SC-13 likes to fix things such as sandwiches, Kool-aide, and "cartoon animations." She says he has been doing this since he was five. He likes to retell a story he read about the rainforests. And Minnie describes storytelling as #SC-13's special talent. She says he's been telling stories for about 1 year. #SC-13 also likes to draw pictures of the house, family members and animals, she reports. She feels #SC-13 is a leader with other children, especially in all games, such as basketball, football. He has a good memory, she feels and relates in detail stories, dreams, things the family has done. Minnie observes that #SC-13 reads a lot, especially cook books and sometimes "novels, story books.: Sports are a big interest to #SC-13, as Minnie lists baseball, basketball, soccer, golf, tennis and gymnastics as his favorite in the past year and a half. Minnie also notes that #SC-13 is very hyper and likes to have everyone's attention.

"#SC-13's school work is impeccable," says Mrs. Sumpter. "He is very smart with the exception of the times tables."

"He has matured more in the last year. He is more focused on what he wants to become," she says, since being identified.

He likes reading and science. In the first grade, because he was so good at reading, he read to the kindergarten class, she explained, "and he was outstanding."

"#SC-13 is very inquisitive, very good at asking questions," Mrs. Sumpter explained. She says he is very helpful at home, cleans the kitchen, sweeps the floors. "He's an all-around kid. I really enjoy him."

Mrs. Sumpter says she thinks #SC-13, because of his inquisitiveness, wants to be a lawyer, "like Johnny Cochran. Also, I hope, my dream for him is to become a state senator." She says she will support him in becoming these things through "love, care, prayers and money. Everybody in this family will help (him) to fulfill (his) dreams."

STUDENT OBSERVATIONS:

#SC-13 recalls his teachers telling him he had special talents last year. He says they told him that if he would "do real good, I could get an award if I wanted. if I'm student of the week, I'll get a prize. I wanted to be." He did become student-of-the-week twice. He thinks he was nominated because he was helpful to the teacher. and because he "did my work real quick-like." When asked what he has to do to be a good student, he replied, "Concentrate. That means pay attention and do your own work. Raise your hand and spell out words. We can ask the teacher for help, too."

#SC-13 thinks language is hard "like words you don't understand - long words. You've got to get help." When asked how the teacher helps, he said, "She helps me sound it out." He said the toughest word he's learned so far was abbreviation. Asked to spell it, he responded, "A-b-r-e-a-t-i-o-n." His favorite word to say and spell is 'cheetah.' "He runs fast, has black spots all over and is a meat-eater."

#SC-13 says being a good student means "doing my work. I write real quick." He is more fond of drawing, however. He says he likes to draw cars, motorcycles, trucks, and to make airplaces. He thinks airplanes are easy to make. "My mom said it would kinda take me a long time, but it didn't. I got it right away. That makes me feel happy."
#SC-13 says 'happy' means "like it's your birthday and you get five or six slices of cake."
When #SC-13 does his homework at home, his mother and aunt help him. sound out words. They tell him to look at the word. One of #SC-13's favorite books at home is the dictionary, he says. "I learn the words and what they mean."
#SC-13 likes to draw. "I may be an artist when I grow up, " he says casually. He also has other career interests. "I want to be a lawyer. I saw one in court. He had funny hair - looked like a girl," he said, laughing. "I might want to be president," he said, then paused and added, "Nah, they get shot too much."
When asked to describe the best drawing he'd done so far, #SC-13 described a picture of a big house with lots of trees and blue sky and stars on the side. He said there were 11 to 14 people in the picture.
#SC-13 likes karate, learned in lessons he takes with his cousin. He also described to me how he and his cousin and friend often make things out of wood. They made a "treehouse" but it fell down, he said. #SC-13 likes to work with wood. He and his cousin once got some lumber to do a project but one of the boards "fell down on my cousin's head. It didn't hurt - his head's like a brick." He says he doesn't use hammer and nails, yet. But he likes to carve. He's carved trucks, people and an airplane.
#SC-13 says he's travelled to Myrtle Beach and New York City, where he saw a taxi and learned to use chop sticks. His favorite dish is pork-fried-rice.

Researcher Observation:

During the video taping sessions, this writer was unable to figure out how to adapt the camera to AC power. #SC-13 took the camera and cords and had the machine powered up and tape in within a minute. I asked him if he had a camera at home or ever worked one before. "No m'am," he responded. He also arranged all my blank tapes, placed labels on each one and then remained for the duration of the session as my cameraman, giving "Action" commands to me when he had each person in the frame and the tape was rolling. All of this behavior was without direction from me and done in an eagar and polite manner.

#SC-14

Benefit Least

Reason student was selected for Project Spring
Pioneer Day Score
Torrance Test

CHILD DATA

		TR	TM	Lang	3 R's	Tot Bat
STAN	1993	15/3	16/3			
	1994	14.3	30/4	25/4	18/3	
MAT	1995	9/2	17/3	22/3	11/3	

Gr. Range 85 - 99

Otis Lennon 94 78

Writing Sample

	Fl	Fx	Or	El	El	Total
Pretest						
Posttest	2	2	2	3	3	12

Torrance Streamlined

	Verbal		Nonverbal			
	Fl	Or	Fl	Fx	Or	El
Pretest	5	2	14	3	4	20
Posttest	5	4	14	5	6	28

Piers-Harris Children's Self Concept

Posttest 87%ile

BAPS
Pre 13/36; Post 24/36

Pioneer Day Score: Product 8, Interview 7

PARENT OBSERVATIONS

#SC-14's parents say he's good at making things, such as sling shots and cherry poppers. He also plays with Ninja stars and airplanes he's made. He's been doing this since he was four.

They feel he has talents in music, and "likes funny and corney stuff." He also uses "furniture and walls for drums." He has been doing this since he was very young, they say.

#SC-14 likes to draw cars, people, animals and juke boxes, they report. He has been drawing for the last three years, they say.

#SC-14 is involved in the Cub Scouts.

His parents say they think #SC-14 has a good memory on anything not related to school. They report that he has a repertoire of "corney jokes."

#SC-14's parents think that he is "very active, with lots of movement."

STUDENT OBSERVATIONS

#SC-14 says his favorite subject in school is math. He likes to divide and play Around the World. When asked to work a problem, #SC-14 chose to multiply a 3-digit number by a 3 digit number. It took him 1:20 to reach a correct number. He used only one CBM cue to work the complex problem. He also likes social studies, because they got to study the Mayflower and Pizzaro. He learned that "you couldn't take a bath on the Mayflower or change clothes for 66 days. The children had to drink beer and you could only drink once a day and could only take five items." He felt if he'd gone on the Mayflower, he would have taken clothes, shoes and a game to play with.

His mother helps him at home with his homework. She sometimes helps him with his spelling by sounding it out to him. She also asks him "what number times the other and then she tells me and I usually get it right."

At home, #SC-14 likes to play, especially with his uncle. They wrestle lots, says #SC-14.

When he grows up, #SC-14 wants to join the Army.

Family Data

Four sisters, 12, 10, 5, 4

#SC-15

Benefit Least

Reason student was selected for Project Spring
Added later - teacher recommendation.

CHILD DATA

		TR	TM	Lang	3 R's	Tot Bat
STAN	1993	39%	35%			
	1994	5%	6%			
MAT	1995	14%	7%	22%		6%

Gr. Range 85 - 99

Otis Lennon 94 66

Torrance Streamlined

	Verbal		Nonverbal			
	Fl	Or	Fl	Fx	Or	El
Pretest	1	0	5	5	2	8

Piers-Harris Children's Self Concept

Posttest 33%ile

BAPS
Pre 17/36; Post 22/36

Ravens Progressive Matrices: 20/85%

TEACHER OBSERVATIONS

#SC-15's teacher describes him as very reluctant to try new things. "#SC-15 has a speech problem that sometimes limits his ability to say what he feels and at times this became a downfall. There were times when #SC-15 was able to work long division in math or get up enough courage to explain what he wanted even though his speech limited him." Mrs. B.
#SC-15 felt students would make fun of him telling stories, his teacher reports.
For all his hesitation, he will try in science, she says. He had curiosity and a willingness "to try anything to see if it would work."
"#SC-15's problems come mostly from his communication, that if allowed will/does show the progress of his learning." Mrs. B.

STUDENT OBSERVATIONS

#SC-15 remembers the unit on water last year. Math and science are his favorite subjects. He likes to

study about plants. He also likes "counting" in math. He showed how to do a single-digit multiplication.
#SC-15 says social studies is his hardest subject. He doesn't like to study about maps.
At home, he likes to look at his football cards. His favorite card is "Wendell Cunningham," who plays for his favorite team.
When he grows up, #SC-15 wants to be a van truck driver, like his uncle.
#SC-15 says he's smart.

Family Data
Lives with mother, dad.

#SC-16

Benefit Most

Reason student was selected for Project Spring
Pioneer Day
Ravens Score
Writing Sample
Torrance Test

CHILD DATA

		TR	TM	Lang	3 R's	Tot Bat
STAN	1993	87%	62%			
	1994	87%	62%			
MAT	1995	55%	80%	66%		58%

Gr. Range 85 - 99

Otis Lennon 94 103

Writing Sample

	Fl	Fx	Or	El	El	Total
Pretest	2	2	2	2	2	10

Torrance Streamlined

	Verbal		Nonverbal			
	Fl	Or	Fl	Fx	Or	El
Pretest	25	5	14	5	1	28
Posttest	10	0	14	8	4	53

Piers-Harris Children's Self Concept

Posttest 71%ile

BAPS
Pre 30/36; Post 24/36

Ravens
25/95%

Pioneer Day Score: Product 9, Interview 6

STUDENT OBSERVATIONS
#SC-16 says his favorite subjects in school are math, science, social studies and reading. When asked

if he is good at these subjects, he confidently replies, "Yes, m'am."

In science, #SC-16 says he likes to study plants especially and also animals. Last year when his class studied about water, #SC-16 remembers doing experiments and described two in detail. He also talked about the field trips his class took in conjunction with Spring Grant. He liked going "to the capital of our state" and going to the beach.

In math, he likes to do multiplication and subtraction.He demonstrated his abilities by multiplying a 3-digit number, carefully taking about 30 seconds and achieved the right answer. He learned multiplication, he says, by "starting out with one-digit numbers, then doing two-digit numbers."

#SC-16 likes to read "third-grade level" books, especially those books about "the earth and volcanoes."

The hardest thing for #SC-16, he says, is language arts. "I'm not real good at it, like the adjectives, I'm real good at but the other things, I'm not," he explained.

When he's not in school, #SC-16 says he likes to study and draw pictures. He draws his family, especially his sister, whom he helps "to take care of."

#SC-16 says he wants to be a lawyer when he grows up. "The jail that my daddy was at had one. That's what made me decide to be one."

#SC-16 plays football, soccer and baseball, but football is his favorite.

Family Data

Lives with both parents.

#SC-17

Benefit Most

Reason student was selected for Project Spring
Storytelling
Writing Sample
Pioneer Day
Torrance Test

CHILD DATA

	TR	TM	Lang	3 R's	Tot Bat
STAN	1993	23/4	45/5	43/5	31/4
MAT	1995	6/2	28/4	38/4	16/3

Gr. Range 85 - 99

Otis Lennon 94 75

Ravens
19/40%

Writing Sample

	Fl	Fx	Or	El	El	Total
Pretest	3	3	3	3	2	14
Posttest	2	1	1	2	3	9

Torrance Streamlined

	Verbal		Nonverbal			
	Fl	**Or**	**Fl**	**Fx**	**Or**	**El**
Pretest	2	0	14	1	2	18
Posttest	5	0	14	2	10	18

Piers-Harris Children's Self Concept

Posttest 91%ile

BAPS
Pre 23/36; Post 27/36

Pioneer Days: Product 13, Interview 8

TEACHER OBSERVATIONS

"#SC-17 was working on a third grade level, and worked up to the fourth grade. She is willing to try. In regards to being gifted and talented, she worked on Shakespeare by choice. She is very creative. She's made good improvement since third grade. She thinks of herself as talented.: Teacher of Gifted

STUDENT OBSERVATIONS

"One of my talents is singing. I love to sing and dance. That's what I really love to do and I'm really great at storytelling, too," says #SC-17. She then related a story about a girl going to a ball. Her presentation was very animated and full of dramatic inflection.

#SC-17 reports that she likes math, science, reading and "actually all my classes. I just love science - how it be made. I like the experiments." She described the volcano project, how they had mud "and mashed it up, there on the bottle. Then we used vinegar, baking soda and it just - poof - exploded."

#SC-17 says she likes reading and described one of her recent favorites, The Monster, relating the details, plot and characters.

In math, #SC-17 says she likes "averaging" and performed a two-step problem in about 15 seconds, with the correct answer.

When asked how it felt to be identified by the Spring Grant as having potential, she said, "Great - it's that warm feeling inside. They said 'You got great talent; I loved you tape, your singing.'"

After school, #SC-17 used to take karate and then come home to do homework at her desk in her room. "I have quiet, and the door's closed."

She says her "mama or my sister" help her with her homework. On weekends, she goes to her grandma's house and takes her church clothes with her because on Sunday, "I take me a quick shower and then we walk to church, 'cause it's not far from her house."

When she grows up, #SC-17 hopes to be "a singer, storyteller and a teacher." When asked who will help her reach her dreams, she quickly replied, "God."

#SC-17 says her dad went to college for five years and is in the Army now and her mother studied to be a doctor for three years but is now working on her "nurse training."

"She wants me to go to college. She says that's her dream," says #SC-17.

Family Data

Lives with both parents, one sister, two brothers

#SC-17's mother is working on her GED. Her father is in housekeeping at a local motel.

Other Notes:

#SC-17 has drums and a keyboard at home and often stays up at night to engage in her music. The church plays an important role in her life as indicated by her video biography.

#SC-18

Benefit Most

Reason student was selected for Project Spring
Winner of the Story Telling contest, with a score of 5
Writing Sample
Torrance Test
Ravens scores

CHILD DATA

BSAP 95/737

		TR	TM	Lang	3 R's	Total Bat
STAN	1993	45/5	58/5	83/7	55/5	55/5
	1994	40/5	72/6	85/7	59/5	59/5
MAT	1995	43/5	74/6	73/6	60/6	54/5

Gr. Range 82 - 99

Writing Sample

	Fl	Fx	Or	El	El	Total
Pretest	2	0	14	3	1	10

Torrance Streamlined

	Verbal		Nonverbal			
	Fl	Or	Fl	Fx	Or	El
Pretest	2	0	14	12	2	51
Posttest	4	2	6	2	3	7

Piers-Harris Children's Self Concept

Posttest 60%ile

Ravens Progressive Matrices
27/90%

BAPS
Pre 10/36; Post 24/36

TEACHER OBSERVATIONS: #SC-18 tries hard." Mrs. B.
"She showed a lot of progress during third grade and continues to progress in fourth grade." Mr. A.

"She is doing very well in all subject areas." Mr. A.
"She has made great progress since being identified. She just kept going on up." Mrs. B.

STUDENT OBSERVATIONS

#SC-18 remembers being told that she had "a lot of talent to do a lot of things, to be a movie star, to be a singer. It made me feel real happy, like you just wanted to go out and do a lot of things. Like I'm a teacher or movie star right here in this school."
#SC-18 says math is her favorite subject. She likes times tables and division. She can do the 11's tables and some of the 12's tables from memory. She also likes spelling. She likes to say lots of words, and often gets 100's in spelling. She spelled her biggest word (although she felt all were easy to her.) She says she "just likes writing down words." Language is easy for her, too. When she does her math homework, she says it takes her about 30 minutes if she "has a lot." She works in her bedroom. Sometimes she works on the computer, "a word processing" and her cousin helps her do special homework. The cousin got the computer in November and the two of them have been using it since then.
In her classroom, there are two computers. But #SC-18 says one is only for music. She likes to play Tunnels and do her times tables on it.
#SC-18 has very specific plans for her future. She would like to go into the Army and then go to college, thereafter be a movie star. #SC-18 says her "mama loves it" - the idea of her being in the Army and getting her education. Her mother says she wanted to be in the Army but instead she's now a beautician.
#SC-18 says she rarely needs help in her homework, so it's not necessary for anyone to help her. Her best book so far has been "The Mouse and the Cheese." As she relates the story, she becomes very articulate with good grammar.
#SC-18 says that when she has to do leadership "things" in class, she feels good about it, especially when the teacher praises her. She related how difficult is was to "make the whole class get behind" but she says that's what teaching is like.
#SC-18 described a club that she and her cousin organized and run (she is vice-president, her cousin is president.) They "have dues and raise money" to give things to "needy" people. They raised $55 to buy kids toys for Christmas. They had a "pick" for Christmas for club members. She says the club has been running for two years.
When asked what her future holds, she replied, "It feels like I'm going to be somebody special."